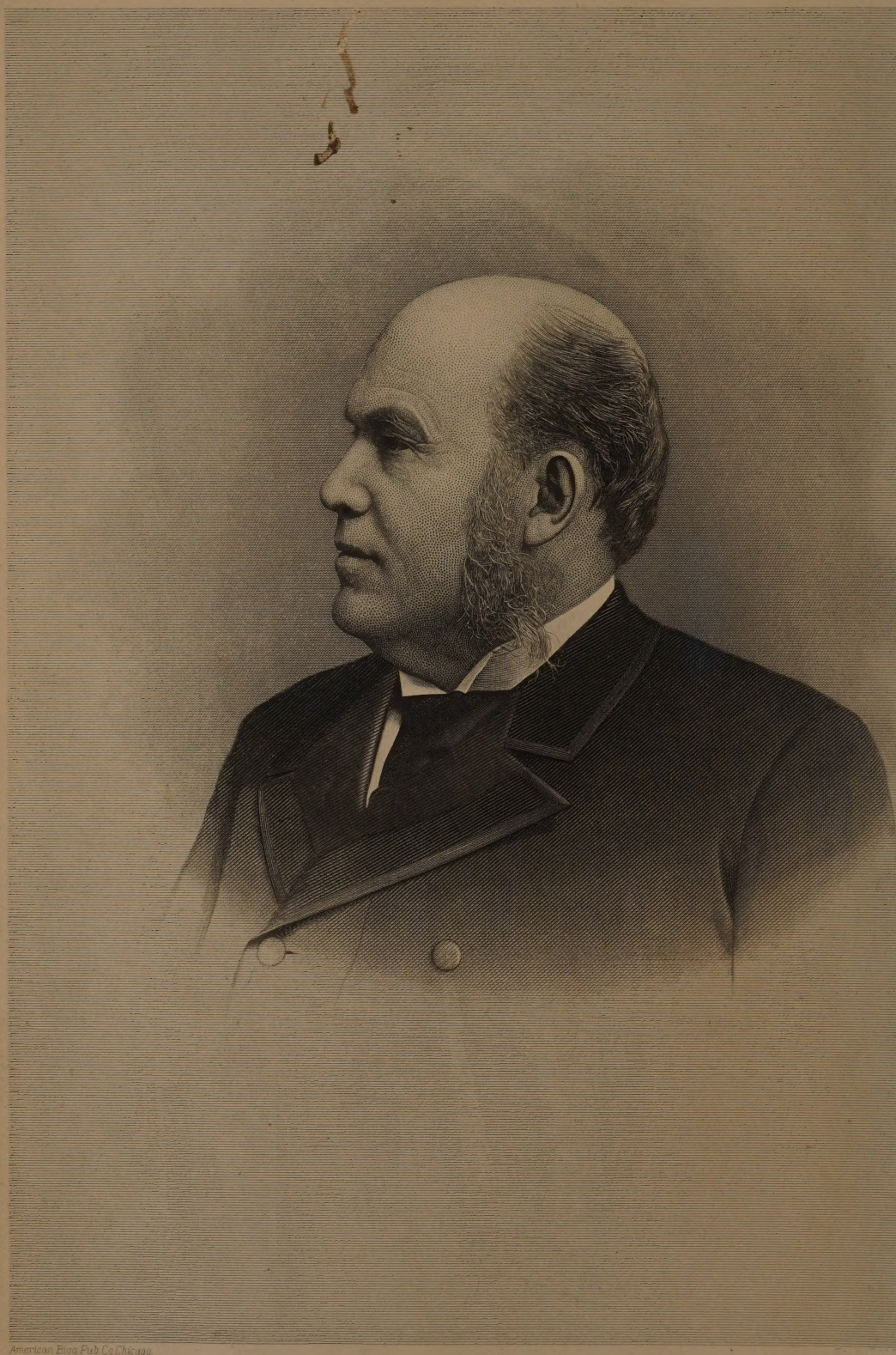
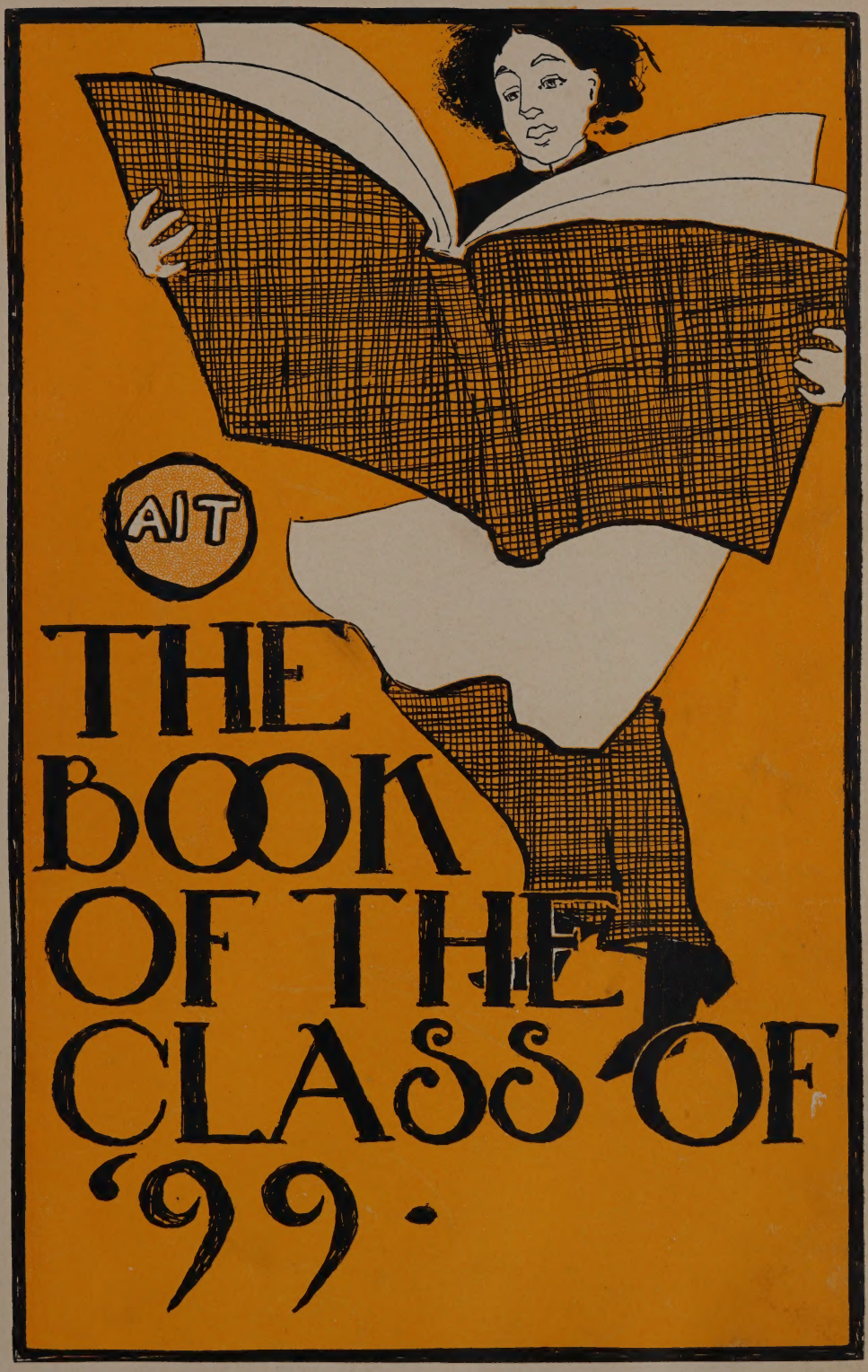

INTEGRAL
MDCCCXC



American Biog. Pub. Co. Chicago.

Philip D Armour

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Armour
V.1
1918

The Integral

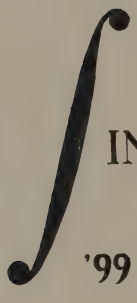
Volume I

MDCCCXVIII



Published Annually
by the Junior Class of
Armour Institute
of Technology

2-23-35 15.4



INTEGRAL

'99

Of things that be strange,
Who loveth to read,
In this book let him range,
His fancy to feed.

Respectfully dedicated to our
Honored Founder and Patron,
P. D. Armour, Esq.



Editors: '98 INTEGRAL BOARD

"Call them, if you please, bookmakers, not authors."
—*Franklin.*

Contributors:

"Why did I write? What sin to me unknown
Dipt me in ink, my parents' or my own?"
—*Pope.*

Publishers: J. W. FRANKS & SONS

"Though an angel should write,
Still 'tis devils must print."
—*Tom Moore.*

Distributers: ARMOUR STUDENTS

"Merchants of great traffic through the world."
—*Bowser.*

Buyers:

"I would earnestly advise them, for their good, to order this book, to be punctually served up."
—*Addison.*



AS further concealment would be useless, the Ninety-Eight Integral Board confesses to the publication of this, our First Annual. Please accept it in its entirety, that in years to come it may prove a source of pleasure and a happy reminder of college days gone by.

Throughout our work we have had two especial motives in view, viz: To furnish accurate statistics, and to provide humor which shall amuse and not offend. Should any of our playful jests be taken in any other spirit than that in which they were written, we shall feel that a great part of our work has been performed in vain.

We wish to extend our heartiest thanks to those who have aided us in our labors, and to the students in general who have taken such a deep interest in our progress.

Special acknowledgement is due to Prof. Roney and Mrs. Beveridge, whose kindnesses have aided us in securing many of the statistics herein produced.

The Board has suffered the loss of Associate Editors Cady and Florsheim and of Manager O'Leary, to whose contributions and many timely suggestions we owe much.

Considering it essential that the important events of the school since the opening of the institution should be noted, we have striven, with this end in view, to give you a glimpse of the fun, labor and results of life at Armour, and to make the volume interesting, instructive and worthy of its surroundings.

The editors hope that "our first attempt" may prove sufficient excuse for our failings, and that whatever merit the volume may possess shall be credited to the Class of '99, who are the instigators of and in whose name the INTEGRAL is edited and published.



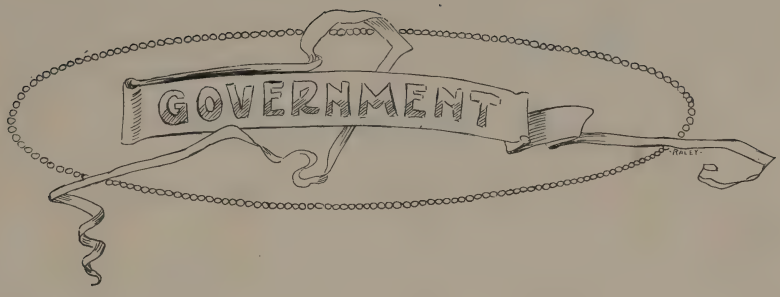
1897-98

1897

June 28–29.	Monday and Tuesday	June Entrance Examinations
September 9–10.	Thursday and Friday	September Entrance Examinations
September 16.	Thursday	School Year Begins Registration of Students
September 17.	Friday	Registration of Students
November 25–26.	Thursday and Friday	Thanksgiving Holidays
December 13–15.	Monday–Wednesday	Autumn Term Examinations
December 15.	Wednesday	Autumn Term Ends
December 16.	Thursday	Winter Vacation Begins

1898

January 2.	Sunday	Winter Vacation Ends
January 3.	Monday	Winter Term Begins
February 12.	Saturday	Lincoln's Birthday; a Holiday
February 22.	Tuesday	Washington's Birthday; a Holiday
March 21–23.	Monday–Wednesday	Winter Term Examinations
March 23.	Wednesday	Winter Term Ends
March 24.	Thursday	Spring Vacation Begins
March 30.	Wednesday	Spring Vacation Ends
March 31.	Thursday	Spring Term Begins
May 16.	Monday	Founder's Day; a Holiday
May 30.	Monday	Memorial Day; a Holiday
June 13–15.	Monday–Wednesday	Spring Term Examinations
June 15.	Wednesday	Spring Term Ends
June 16.	Thursday	Summer Vacation Begins



The Trustees

PHILIP D. ARMOUR
FRANK W. GUNSAULUS
PHILIP D. ARMOUR, Jr.
SIMEON B. ARMOUR
J. OGDEN ARMOUR
JOHN C. BLACK

The Officers of Administration

I

The President, FRANK W. GUNSAULUS
The Dean of the Faculty, THOMAS CONANT RONEY

II

The Executive Committee of the Faculty

Consisting of the President and the Dean of the Faculty (ex-officiis) **and the following officers**

The Director of the Department of Mechanical Engineering, CHARLES VOLNEY KERR
The Director of the Department of Electrical Engineering, WILBUR M. STINE
The Director of the Department of Architecture, LOUIS J. MILLET
The Professor of Mathematics, VICTOR CLIFTON ALDERSON
The Professor of Modern Languages, LOUIS CELESTIN MONIN
The Professor of Physics, ALBERT B. PORTER
The Professor of Chemistry, THOS. GRANT ALLEN

III

The Director of the Scientific Academy, THOMAS CONANT RONEY
The Secretary to the Board of Trustees, FREDERICK U. SMITH
The Secretary of the Institute, MRS. JENE BELL
The Librarian, MISS JESSIE VAN VLIET
The Registrar, MRS. JULIA BEVERIDGE

Philip Danforth Armour

IN Stockbridge, Madison County, New York, on May 16th, 1832, Philip Danforth Armour was born. He is distinctly an American, as are his ancestors for generations.

His boyhood's days were spent on a farm, where the fundamental principles which have made his life a success—habitual frugality and industry without ceasing—were instilled into his character. As a boy he was genial to a degree, healthy, resolute and strong; he held his own wherever chance found him, and was a leader among his classmates, as later events were bound to make him among men. A country life among the Stockbridge hills, while a most excellent place for a boy to be reared, was too obscure for one so tempered; consequently it is not strange that when the excitement due to the discovery of gold in California was spreading over the country, we find Mr. Armour on his way to the land of flowers. The trials and hardships which he encountered there seemed to have broadened his views and knit together his dominant characteristics.

In 1856 he returned to the East and visited his parents, whom he had always held in reverential affection. To them he divulged an account of his success and related the stories of his adventures. (To a few of the most intimate friends of the family the father whispered the fact of the young man having brought back some money with him.)

After remaining with his parents a few weeks he once more turned westward, and finally located in Milwaukee, where he formed a co-partnership and entered the commission business with Frederick B. Miles. After a successful run, they dissolved in 1863.

The dogmatic and persistent way in which he pursued his business, his characteristic manner in grasping out for new ideas, brought him prominently before his fellow townspeople. Though yet young, he was looked upon by many with something akin to envy, at the prestige which he had already attained.

In the spring of 1863 there occurred what later proved to be the forerunner of a very successful business engagement in the joint co-partnership arrangement between John Plankington and Philip D. Armour. But the success which Mr. Armour has met in his business transactions is so well known that it is not necessary to allude to it here.

In October, 1862, he was married to Miss Malvina Belle Ogden, at Cincinnati, Ohio—a union which has proved to be most happy.

Mr. Armour's capacity for work is something wonderful. He is at his desk by 7 a. m., and frequently before this time. Fatigue is to him an unknown term. He has traveled extensively, is a close observer, and can give as clear and as accurate a forecast of the financial condition of the country as it is possible to do.

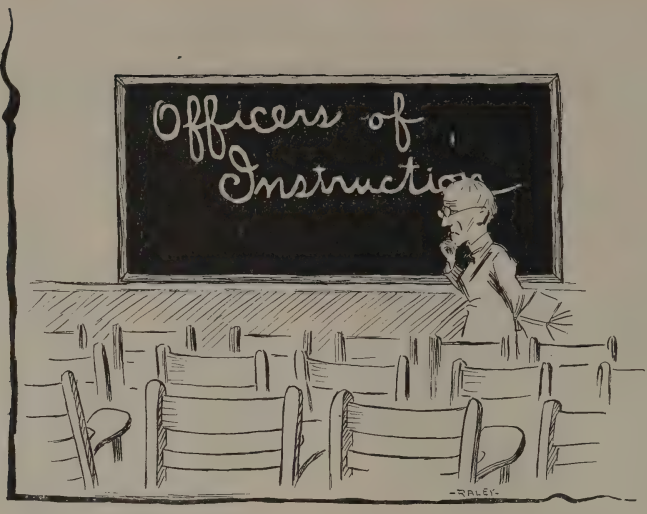
Notwithstanding the vast amount of work which the management of so large a business necessarily imposes upon him, Mr. Armour finds time to take a lively interest in the two institutions which bear his name—"The Armour Mission," founded by Joseph F. Armour, and the "Armour Institute of Technology," founded by himself. He makes several visits a week to the Institute, and is deeply pleased in the work which the students are doing.

It is this combination of industry, untiring energy and philanthropy, that has made the name of Philip D. Armour not only so potent in the West, but a recognized leader among the merchants of the world.



ARMOUR INSTITUTE OF TECHNOLOGY


THE
TECHNICAL
COLLEGE
G. COWAN 97



The Executive Committee



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Professor of Mathematics.

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Professor of Electricity, and Director of the Department of Electrical Engineering.

L. J. Millet

Professor of Architecture and Design, and Director of the Department of Architecture.

A. B. Porter *B.S.*

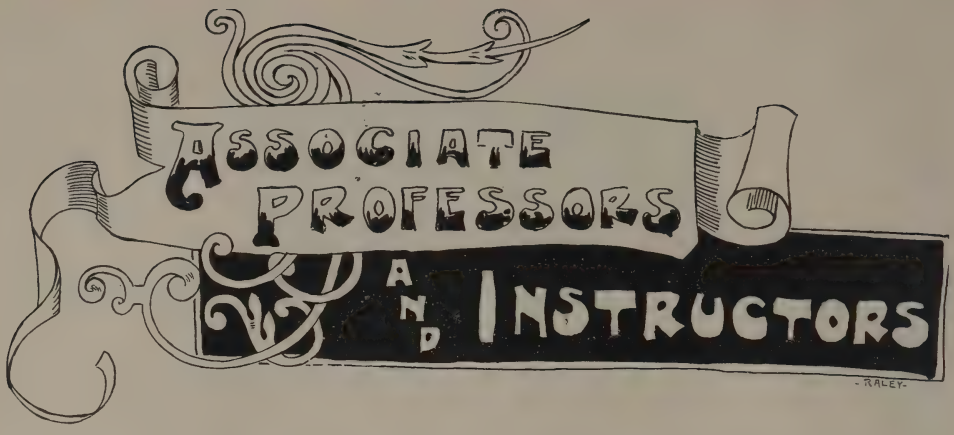
Professor of Physics.

C. V. Kerr *Ph.M., M.E.*

Professor of Steam Engineering, and Director of the Department of Mechanical Engineering.

L. G. Allen *A.M.*

Professor of Chemistry.



J. P. Gaylord — *B.S., E.E.*

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W. H. Shattuck — *B.S.*

Associate Professor of Mathematics and Construction.

A. M. Feldman — *B.S., M.E.*

Associate Professor of Mechanical Engineering.

W. J. McClement — *A.M.*

Associate Professor of Chemistry.

J. B. Thomas — *A.M.*

Associate Professor of Mathematics.

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Instructor in Machine Tool Work.

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Instructor in Decorative Designing.

David Gorrie

Instructor in Forging.

C. H. Robison A.M.

Instructor in Biology.

James Ritchey

Instructor in Wood Working.

John C. Bley. — B.S.

Instructor in Steam Engine Design.

Alfred Keller

Electrical Mechanician, and Instructor in Shop Practice.

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Herbert Gaytes M.S.

Instructor in the Electrical Laboratory.

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Instructor in the Electrical Laboratory.

Benj. H. Glover.

Instructor in the Electrical Laboratory.

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Instructor in Gymnastics.

Rosa C. Laug.

Instructor in German.

Carrie Wright. *A.B.*

Instructor in Latin.

Ralph Herbert Rice

Instructor in Mathematics.

H. M. Raymond *B.S.*

Instructor in Physics.

Jessie S. Van Vliet

Librarian.

Madeleine W. Wilmer

Assistant Librarian.

In Memorian



WILLIAM J. CAMPBELL

Born December 12th, 1850; Died March 4th, 1896.
Former Trustee of Armour Institute of Technology.



Part One—Historical Matter Concerning the School as a Whole

Part Two—Class History

Part Three—Literary and Other Organizations

Part Four—Miscellaneous; Truth and Fiction

Part Five—Integral Buyers' Guide

For Page Arrangement
Refer to
The Index

F. W. Gunsaulus



RANK WAKELEY GUNSAULUS was born at Chesterville, Ohio, January 1st, 1856. His father was Hon. Joseph Gunsaulus, a direct descendant of the Spanish martyr, Reginald Gonsalius Montanus, who died at the hands of the Inquisitors in the sixteenth century. His mother, who was of English descent, was a Miss Hawley.

He was educated at the Wesleyan University, Delaware, Ohio, graduating in 1875, and marrying in the same year Miss Anna Long of Virginia. He began preaching at once in the Methodist Church. In 1879 he became pastor of the Eastwood Congregational Church in Columbus, Ohio, and in 1881 accepted the pastorate of the High Street Congregational Church, of the same city. Breaking down in health, he went to Newtonville, Mass., remaining there until 1885, when he was called to the Brown Memorial Church of Baltimore, where he remained until he received the summons which brought him to Plymouth Church, Chicago, in 1887.

He has published at different intervals sermons, essays, historical sketches, and poems. His first book of sermons was published in 1881, and was called "October at Eastwood." In 1886 his "Transfiguration of Christ" was published; in 1891, "Monk and Knight," and "Phidias, and other Poems"; in 1893, "Loose Leaves of Song;" and in 1895, "Songs of Night and Day." His well-known lectures on Savonarola, John Hampden, Oliver Cromwell, The Higher Ministries of Contemporary English Poetry, and several others, have never been printed.

In 1887 the degree of D. D. was conferred upon him by Beloit College, Wisconsin. Dr. Gunsaulus is regarded as one of the greatest connoisseurs of fine art and bibliomania in America. He is at present, in connection with his clerical work at Plymouth Church, occupying the position of President of The Armour Institute of Technology, and is a prime mover in all fields of educational work. He is a scholarly man, with an extremely attractive personality. A brilliant speaker, his words full of fire and color, and scintillating with flashes of humor, and he holds his audiences to the end of his splendid lectures. Not unfrequently he has been called the Second Beecher, and as orator he is often likened to Wendell Phillips. He is a man of distinct ideas, with a great, generous, loving heart.



Our Name.



INCLUDED among the first duties of the Editorial Board was the selection of a name for the Annual. This was not such an easy task as one might imagine, upon first thought. In referring to the names of other college annuals we found such names as these: "The Bugle," "The Lantern," "Oriflamme," "The Hullabaloo," "Jambalaya," "The Sombrero," "Corks and Curls," "The Gopher," and numerous other meaningless titles; there could be but one result, this was a firm determination on our part, to select a name which would not only have a definite meaning to college students, but which would be characteristic of the volume which we hoped to produce. Nothing but the best would do, and immediately the search began; many names were proposed, discussed and discarded as inadequate.

Weeks passed by without satisfactory results, and it seemed that our name would be "Nemo," when suddenly, one day, our honored friend and classmate, Erle Sidney Roos, became inspired.

This inspiration immediately took definite form and the name "INTEGRAL" was presented for our consideration. It came like the gentle breeze at eventide, and was unanimously accepted by the Board.

According to the "American Encyclopædic Dictionary" the word "INTEGRAL" signifies entire, complete; containing all the parts—so suggestive of the character of the young man who conceived it, and so descriptive of our aspirations—do you wonder that our name is "THE INTEGRAL?"

In Memoriam

PROF. JAMES CLARK FOYE, A. M., PH. D., LL. D.

It was with a deep sense of sorrow that we heard of the sudden death of Prof. Foye on the evening of July 3, 1896. Some of us knew that he had been ill for about a year, but we hoped, and perhaps most of us expected, that the rest which he would obtain during the summer holidays would restore him to health. He was extremely adverse to appearing ill, so much so that he never missed a lecture or recitation and even when he ought not to have attempted any work he would appear in class with his accustomed good nature and with such perfect control of himself that I doubt if any of his students even suspected that he was ill. It was only when comparatively alone in his office that he allowed himself to show the illness he felt. His death, therefore, was a surprise to both faculty and students, who felt that they were all poorer by the sad event.

Prof. Foye was born March 1, 1841, at Great Falls, N. H., and graduated from Williams College, Williamstown, Mass., in 1863. Shortly after receiving his degree, he was called to the chair of Natural Science in the Wesleyan Female College, Cincinnati, and two or three years later became President of Jonesborough Female College in Tenneesee. In 1867 he became Professor of Physics and Chemistry in Lawrence University, Appleton, Wis., where he remained for twenty-six years, resigning his professorship to accept a similar position in the Armour Institute in 1893. This was before the Institute had any students, and it was thought that one man could teach all the Chemistry and Physics. When the registration made it evident that four men would be required to do this work, Prof. Foye became Professor of Chemistry. Then the department of Chemistry and Chemical Engineering was organized, with Prof. Foye as Director.

Prof. Foye never ceased to be a student and investigator. He contributed to scientific periodicals, wrote three important books, was an active and valued member of the Wisconsin Academy of Science, the Chicago Academy of Science, and the American Association for the Advancement of Science. He earned his Master's degree early in his teaching and the degree Ph. D. was later conferred by DePauw, and LL. D. by Lawrence, and the A. A. A. S. honored him by making him one of its fellows. Lawrence University recognized his executive ability by making him vice president and fiscal agent.

But Prof. Foye was more than teacher, student and scholar. He was a citizen in the best sense of the word, since he found "his satisfaction in ways which were favorable to the well-being of all." He was a well-rounded, well-balanced man. A man of charming good nature, but withal a decidedly positive man, a believer in humanity, an optimist, and altogether the kind of person one likes to have as his friend.

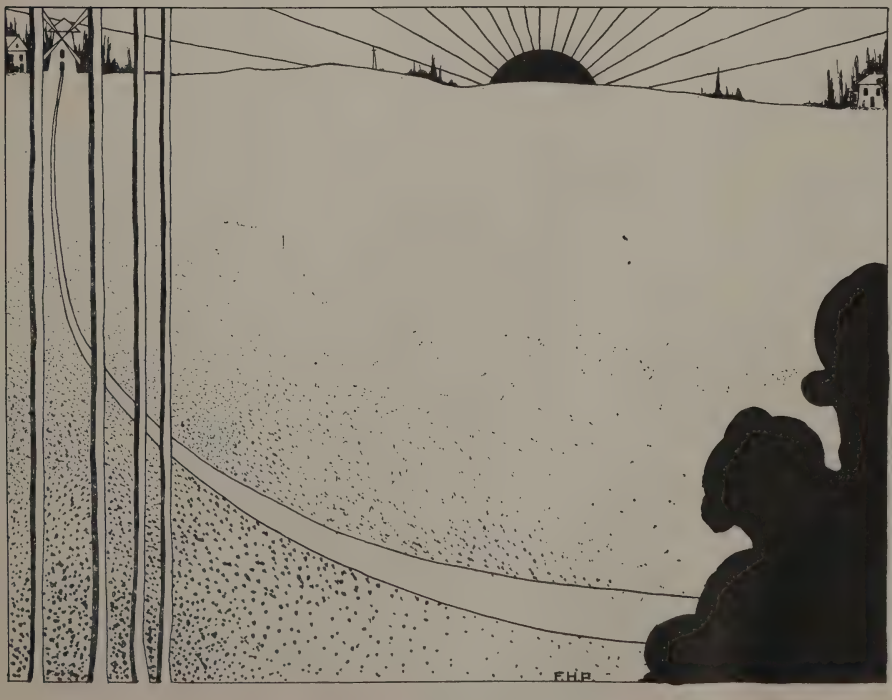
The following resolutions express the feelings of the executive committee toward our departed friend:

> WHEREAS, The earthly career of our friend and colleague, Prof. James Clark Foye, has suddenly terminated, and Armour Institute of Technology, and his professional associates, have, by the sad event, sustained a great loss, therefore,
>
> *Resolved*, That we, the Executive Committee of Armour Institute of Technology, desire to record our sorrow at the loss of one who has been with us since the opening of the Institute, and helped in no small way to lay the foundation upon which successful work has since been accomplished. By his genial manner and kindly ways Prof. Foye endeared himself to every one of us, and by his death we have lost an earnest and enthusiastic fellow student, a conscientious and successful teacher, and an able and judicious counselor. He will be missed in our classes and in our councils, and the memories of his amiability, kindliness, strong convictions and rare good judgment will not soon be forgotten.
>
> *Resolved*, That we unite in these resolutions of respect and esteem, that we tender to the bereaved family our sincere sympathy, and that a copy of these resolutions be transmitted to them by the secretary.





·YE·HISTORY·



History of Armour Institute of Technology



Institute of Technology was founded in 1892, by Mr. Philip D. Armour, of Chicago. The work of instruction was begun in September, 1893." Behind this brief quotation from the institute year book is a story of the personal consecration and brotherly affection of two men, which powerfully contradicts the hasty assumption so often advanced that commercial ideals to-day are hostile to the higher motives and gentler emotions of life.

Mr. Joseph Armour left, in 1881, a bequest of $100,000, to be used in promoting the moral and intellectual development of children and youths. This bequest was given into the charge of his brother, Mr. Philip D. Armour, who has not only been a faithful executor of his brother's benefaction, but has added to it gifts aggregating two millions of dollars.

Following the spirit of the bequest intrusted to him, Mr. Armour erected the spacious building at Armour Avenue and 33d Street, now known as Armour Mission, in which he established what was then known as the Plymouth Mission Sunday School, an organization supported in that neighborhood since 1874 by members of the Plymouth Congregational Church. The effect of this mission was most marked in the neighborhood, and led Mr. Armour to erect the fine group of buildings known as the Armour Flats. These consist of two hundred and thirteen separate suites of apartments, forming an attractive neighborhood, and a congenial environment for the great engineering school which now stands in their midst.

The development of this institution from the antecedent conditions just enumerated was due to the conviction of Mr. Armour and his co-workers, that their benevolent enterprise would fail of its highest aim, unless practical education were added to the moral and religious forces already at work to produce good and efficient members of society. Accordingly a school was planned to include only academic and industrial training; but through the wise forethought of Mr. Armour's pastor, Dr. F. W. Gunsaulus, who was its first president, and who from the first realized the possibilities of the enterprise, its scope was widened so as to make room for higher technical training along various engineering lines, the limits of which were not at first precisely defined. The importance to the community of this kind of education was also strenuously urged by engineers and educators, and their views were reinforced by the many applications for extended courses in engineering that were received as soon as this purpose of the Institute became known.

In March, 1893, President Gunsaulus committed to Prof. Thos. C. Roney, Dean of the new Faculty, the work of co-ordinating these varied elements, and developing a plan by which the departments already established, or to be established, might be united in a logical



Members of the Executive Committee

and harmonious educational scheme. The result was the plan of organization under which the Institute now exists, and which is given below.

Armour Institute of Technology comprises:

I. Armour Institute of Technology Proper, including,

1. The Technical College, which embraces
 - The Course in Mechanical Engineering,
 - The Course in Electrical Engineering,
 - The Course in Architecture,
 - The Course in Mathematics and Physics.
2. The Scientific Academy.

II. The Associated Departments. These departments, which were included in the original plan of the Institute, are still under its direction or are affiliated with it, having justified their existence by the work they have accomplished. They are

1. The Department of Domestic Arts.
2. The Kindergarten Normal Department.
3. The Department of Music.
4. The Department of Shorthand and Typewriting.

Early in 1893 a union was effected with the Art Institute of Chicago, for the purpose of developing the course in architecture, which that institution had successfully maintained since 1889. The result was the establishment of the Chicago School of Architecture, which also constitutes the Department of Architecture of Armour Institute of Technology.

The spirit and aim of the Institute are well expressed in the following extract from its first public announcement:

> "This institution is founded for the purpose of giving to young men and women an opportunity to secure a liberal education. It is hoped that its benefits may reach all classes. It is not intended for the poor or the rich, as sections of society, but for any and all who are earnestly seeking practical education. Its aim is broadly philanthropic. Profoundly realizing the importance of self-reliance as a factor in the development of character, the founder has conditioned his benefactions in such a way as to emphasize both their value and the student's self-respect. The Institute is not a free school; but its charges for instruction are in harmony with the spirit which animates alike the founder, the trustees and the faculty; namely, the desire to help those who wish to help themselves."

It remains to note in brief the work of the institute as it is conducted along scholastic, technical and industrial lines.

The Scientific Academy

No part of this work is more important than that which is justly regarded as the core of its educational system, namely, its Preparatory School. The Scientific Academy admits to its classes, boys and girls, who have completed the studies in the grammar grades of the public schools. It provides courses of four years, which prepare students to enter the Technical College of Armour Institute of Technology, or the leading universities and colleges, east and west. The instruction is under the immediate supervision of the Dean of the Faculty, and many of the classes are personally conducted by members of the College Faculty. The spirit and, to some extent, the methods of college work have been introduced with favorable results.

The Technical College

The engineering courses also are four years in length. Two general considerations have governed their arrangement. On the one hand, by making the requirements of admission in some studies more inclusive than is usual, larger opportunities are offered for the prosecution of distinctively technical work. On the other hand, the fact has been recognized that there are many students in technical schools who, from lack of means, have been unable to obtain that general culture which is indispensable to a broad technical education, and which it is the province of the ordinary college course to furnish. This deficiency is supplied as far as possible by the addition of courses in literature, history and philosophy.

The Associated Departments

The students in these departments share in the general advantages of the Institute. They have free access to the Institute library, in which are works chosen with special reference to their needs; to the gymnasium, where an instructor is in regular attendance; to the literary, musical and social gatherings, which are held at intervals throughout the year and constitute a delightful feature of the school life.

The Department of Domestic Arts affords instruction in the following subjects: cookery, household economy, home nursing and emergencies, plain sewing, dressmaking and millinery. Most of these subjects are pursued in a technical and a special course, the former being intended for those who desire professional training, while the latter is for general culture and development.

The Kindergarten Normal Department. The Chicago Free Kindergarten Association began its work sixteen years ago; its subsequent growth and development have been steady, marked and satisfactory in an unusual degree. The Association was incorporated one year later, April 19, 1882. In 1893 it became affiliated with Armour Institute of Technology. The work of the association is two-fold, viz: a Kindergarten Normal School and a system of Free Kindergartens in the city of Chicago.

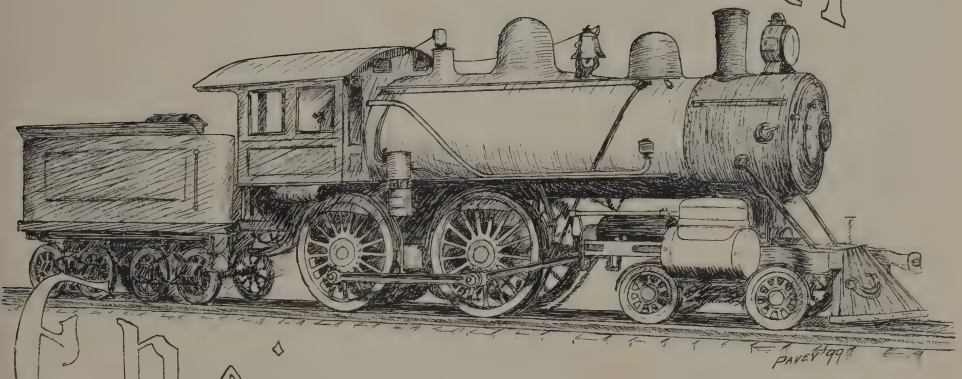
In the Department of Music, instruction is offered in piano, organ, voice culture, violin, violincello, cornet, flute, mandolin, harmony, counterpoint and musical composition. There are concerts, recitals and lectures throughout the school year. Students may be enrolled at any time. The instruction embraces all grades, including children's classes and classes for advanced students. Lessons are given privately as well as in classes.

In the Department of Shorthand and Typewriting, instruction is given in shorthand, typewriting, English, spelling, business and legal forms, correspondence, letter filing, copying, mimeographing, manifolding and office practice. Students are given an opportunity, when far enough advanced, to do practical work, whereby they are fitted to enter business life with a keener appreciation of what is expected of them. The instruction is arranged in two courses, the Amanuensis Course, and the Teachers' Course. As this department is in session throughout the year, students are admitted at any time.

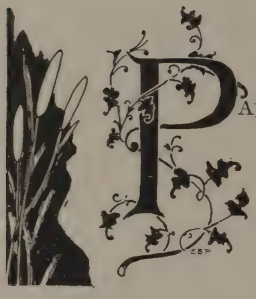


MEMBERS OF THE EXECUTIVE COMMITTEE

Mechanical Engineering



The Department of Mechanical Engineering



PARTICULAR attention must be paid by the mechanical engineer to apparatus for the generation of power and to the machinery by which this power is utilized. But when we consider that the vehicles for this power are steam, electricity, water, air, gas, etc., it will be seen that the variety of apparatus is great. And when we consider further the design and construction of the infinite variety of machines by which power is used in the various branches of manufacture and transportation, it will not seem too sweeping to assert that the work of the mechanical engineer is necessary to all the industrial processes.

Then if we consider the question of the training of a mechanical engineer for his profession, the conclusion will be quickly reached that the problem is a hard one. A generation ago, when the first schools of mechanical engineering were established, there was but little experience of value to serve as a guide. The best judgment of able men was the sole resource in attacking the new problem. That problem was, how best to train men for a work that was seen to be necessary, but the limits of which were as yet indistinctly marked. Thirty years experience are now at command as a guide to what is needed to fit engineering students to begin their professional labors. Moreover, the fund of engineering knowledge has been vastly increased. Compare the treatises on engineering topics published during this period with those previously existing, and the truth of this statement will be realized.

It is not strange, then, that ideas should be changed and methods of training modified by the combined efforts of experience and knowledge. The conventional length of time for this training has been from the first four years. The amount of work that can be profitably given to a student depends upon his capacity for assimilation. More than this is quite like an excess of food—a little worse than useless. Consequently, the standard for admission to the engineering courses has been raised, and subjects curtailed, eliminated or added. A significant instance of this change, wrought by the passing of thirty years, is seen in the appointment for the present session, in one of our leading schools of mechanical engineering, of a Professor of Engineering Physics. The man appointed is a graduate in mechanical engineering, and is prepared for his work by years of experience as an instructor in experimental mechanics. The purpose is not to neglect general physics, for that is still strong, but to teach parts of the science as engineers in practice have found they need it taught. In our own institution, the course in general physics has been strengthened, while the special applications of the science to mechanics and thermodynamics have been intrusted to the professor of mechanical engineering.

The course in mechanical engineering is conformed, so far as possible, to what is now considered good practice. There is such a thing as an engineering market in which



graduates offer their services for sale. When they entered their course they asked themselves, "What will I be fitted for when I get through?" After they finished their courses they were apt to ask, "What can I get to do?" The well-rounded man, the man of good habits, physical and moral as well as intellectual, is the one who forges ahead when he gets something to do. The carpenter needs a few good tools in good order with which to execute his work. But he needs character to secure that work. It is the business of instructors in mechanical engineering to study not only what the general training of a mechanical engineer should be, but also the local demands of employers. On the other hand, they must establish a reputation for their school that will attract students to receive the training offered. Then the students know where to go for the training they want, and employers know where to look for the men they want.

The details of instruction in mechanical engineering are given in our year book. It will be enough to say that a due proportioning is attempted of the work done in mathematics, physics, chemistry, language, shop work, laboratory work, drawing, and engineering practice. And in recognition of the fact that a mechanical engineer's work is largely in contact with business affairs and in the management of men, an insight is given of the general principles of business law, political economy, logic and psychology. The chief branches are steam engineering, and machine design; but a working knowledge is also acquired of electrical, hydraulic, air and gas engineering, and of heating, ventilating and refrigerating.

The reputation of the Institute rests largely with her alumni. And the Institute has been singularly fortunate in the character of the first graduating class. They will make a good impression, which we may safely trust will be deepened and confirmed by succeeding classes.

Lines to Armour Institute of Technology



CANNOT sing thine age or name or fame,
Or moss-grown walls with tints of green and gray,
Re-echoing faintly yet the words of yore,
And breathing memories or sad or gay
Of generations.

I sing thee not for breadth of field and wood,
Where venerable trees bend over earth
Long trod by sons of thine through passing years,
Made dearer by association's birth
And time's slow magic.

Few sons to carry thee in memory,
To make thy name a power through their deeds,
Hast thou sent forth equipped with strength of thought,—
So wait thou must for fruitage from the seeds
Thy care hath planted.

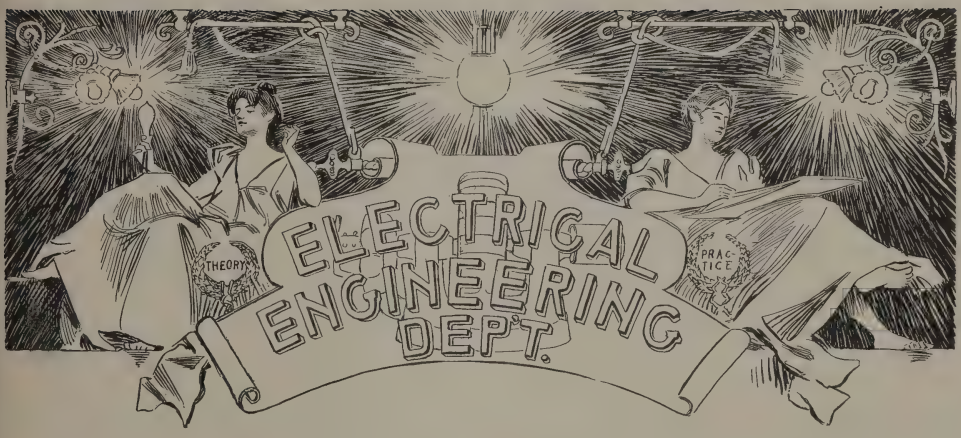
If much is lacking, what then is thy boast?
A standard high, to greater heights no bar;
A record fair in that already writ,
And bound to be yet fairer, nobler far
In that unwritten.

Thy home a city great in breadth and deeds,
Of waters king, though risen from a fen,
Fast bound by ties of steel that throb with life
To all the world of commerce; served by men
Of energy and daring.

Thy spirit, earnestness; we find in thee
That honest effort, backed by purpose strong,
Doth hold its fit reward. All honor be
To men who make this true, in this our song
To Alma Mater.



LADIES OF THE INSTITUTE


THEORY
ELECTRICAL
ENGINEERING
DEPT.
PRAC-
TICE

The Department of Electrical Engineering

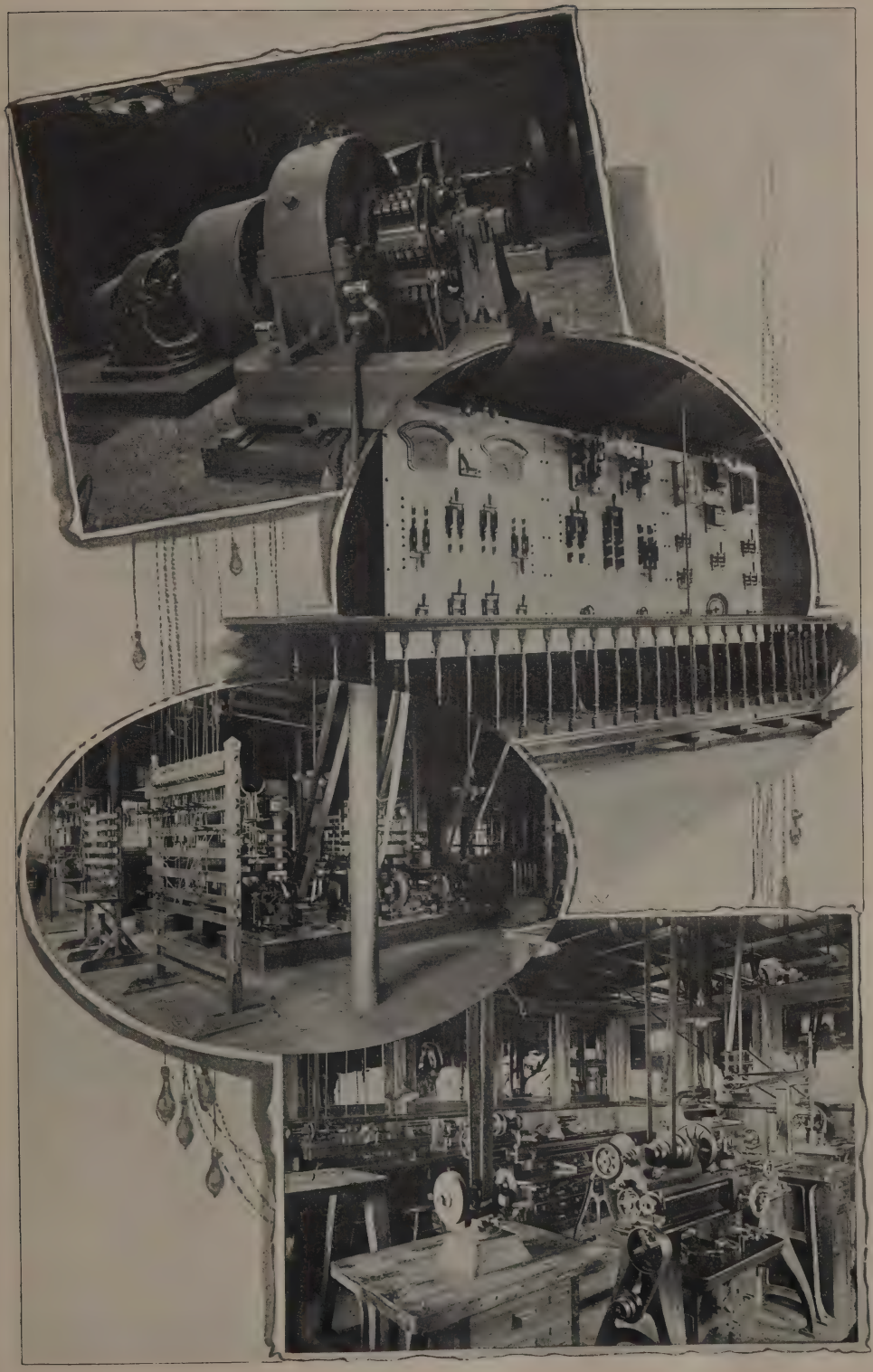


FOR our own profit in the present times of rapid advancement we may pause occasionally and dwell on the historical development of the newer conditions which are so constantly forced upon the attention of the public. Within the sphere of organized intelligent activities, the profession of the electrical engineer and the manner of his educational preparation, are clouded in almost total obscurity in the minds of the general public.

It is within the past decade that the profession has been recognized, and there is still much uncertainty whether electrical, along with that of mechanical, architectural, chemical or sanitary engineering, are entitled to be classed with the so-called learned professions of law, medicine and theology. This is scarcely the place to enter upon an argumentative discussion of such a subject, but the endeavor will be made to show the historical and present status of the professional side of electrical engineering, the ideals which govern it in practice, and general educational training, believing that the intelligent reader can come to but one conclusion when the contrast is instituted with the professions of law, medicine and theology.

The successful completion of the Atlantic Cable some thirty years ago, was an event destined to call into existence a new branch of professional activity. Before the cable became a working success the scientific labors of the greatest of modern mathematical physicists, the present Lord Kelvin, were needed. He may, in this sense, be regarded as the originator of the profession. The extension of submarine and aerial telegraphy led to a still wider application of experimental and mathematical physics and chemistry, reaching also into what are now known as civil and mechanical engineering. Almost contemporaneously with the completion of the Atlantic Cable was made the discovery of the modern dynamo. Then followed the advent of the arc light, the telephone and the incandescent lamp. Succeeding these was the application, in 1887, of electricity for the propulsion of street cars. Next came the development of what has taxed all the resources of mathematical analysis, the alternating current and its multi-phase applications. Within the last few years hydraulic engineering has contributed to the utilization of water powers to such an extent that already there are signs of great economic changes to result from this. Little by little electrical traction has been invading the domain of the steam locomotive, until today we are entering an era of rapid transit by electricity.

This, in brief, is a partial survey of the field open to the labors of an electrical engineer. What, may now be asked, is the definition of engineering, and what is its leading and controlling idea? A brief and rather unsatisfactory reply is that the engineer seeks to utilize natural forces, materials, and conditions, for economic purposes. The engineer is no scientific worker of miracles; on the contrary, his possibilities are always limited by economic conditions, and as these change, more and more of the scientific possibilities will become legitimate subjects to engage the attention of the engineer.



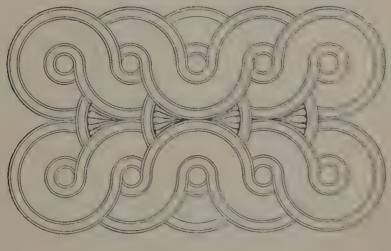
As is to be expected, in a field of activity so new, and with boundaries so elastic and vaguely defined, there is no hard and fast system of educational training. The public is perplexed to distinguish between the trade school, the manual training school, and the strictly technical school. In order of establishment, the manual training school was probably the progenitor of the three. They today hold the anomalous position which the advanced academy does to the preparatory school and the literary college, and will doubtless soon undergo marked modifications, as it is too advanced to train skilled mechanics, and too elementary to educate engineers. Beginning with the trade school, its function is to train the electrician, a skilled electrical mechanic who shall operate dynamos and install and maintain transmission circuits.

These few words are all too brief to allude to that highly essential system of educational manual training.

The electrical engineer is the one who utilizes, plans and designs. It is his mission to control what science places at his command for the accomplishment of an economic purpose. In his training the essential element is such a command of mathematical physics, and the general laws of the physics of matter and energy, that he is enabled to apply them for the accomplishment of his purposes. To this a considerable knowledge of chemistry must be added, and a working command of the leading principles of steam, hydraulic and mechanical engineering. To accomplish this, even in a small way, the conventional collegiate course of four years in the school of technology is all too brief, even with the daily routine of lectures and constant laboratory practice.

For the larger relations of the electrical engineer to his profession and to society, there must be added to all these, intellectual training in the essential elements of a liberal education. The essential elements for the success of the engineer are a trained judgment and a nicely balanced sense of discrimination, and whatever conduces to these in a liberal education adds new power to a professional career.

To turn to the material resources of the electrical department of Armour Institute of Technology, it presents to the student an equipment remarkably complete in many lines. A carefully expended sum of about $75,000.00 has given it an equipment unexcelled in many respects. The newness of the institution, coupled with the rapid advances in the applications of electricity, still leaves much which it will be necessary to complete. This is especially true of the multi-phase apparatus. But the liberality which has marked the establishment of the equipment will no doubt be exercised to its completion.



To My Own Soul



SEEK not to haste thy bud to blossom, Soul,
Thy hot-house hurry blasts its lips of red.
Within God's universe, give God control;
Let power and process by His hand be led.

O singing-bird within a tuneless heart,
Let me not tame thee, lest thou cease to sing.
God save me from that proud, mechanic art
That crowns white winter with green leaves of spring!

Let me not count the falling drops of dew
That find their splendor in the chilly night;
Let me not strain for some immortal view
Reserved for eyes suffused with morning light.

To fasten here my dream, strive not, my hands
Too clumsy!—for dream-filament is fine.
O measure not thy sun-swept Holy Lands;
Leave something vast, mysterious, divine.

—F. W. G.


ARCHITECTURE
R.F. Bourke

The Architectural Department



THE Architectural Department of Armour Institute of Technology is known under the title of the Chicago School of Architecture. It was formed by a union of the Chicago Art Institute and Armour Institute of Technology. This joining of the forces of these two great institutions in 1893 made possible the establishment of a new professional school which will surely take its place, at some time not far distant, in the front rank of the similar schools of this country.

While it is an entirely separate institution, with a distinct set of officers, it is closely linked with both institutions. The students of this department, although under the disadvantage of attending two schools, some three miles apart, have greater privileges and facilities than the students of either one of the two component institutions. They have two libraries at their disposal.

The Art Institute conducts a varied and extensive course of lectures on subjects related to Art, all of which are open to the students of the Chicago School of Architecture. And, as a matter of course, all the lectures, musicals and other entertainments of the Armour Institute of Technology, are open to them also.

There are, at present, two courses in the department. A two years' course and a four years' course. The two years' course is similar to the one established by the Art Institute prior to the union with Armour. It has been thought best to continue it for the present. It is similar to the first two years of the four years' course, excepting that the mathematical studies do not go beyond those in the Scientific Academy, and no French is required. The four years' course embodies all the studies necessary for thorough instruction in architecture, and is similar to the courses of the older professional schools. The course is the same as those in the other departments of the college, excepting, of course, the technical studies. The Armour Institute of Technology furnishing instruction in mathematics, the sciences and language, while the Art Institute provides for the technical and artistic instruction.

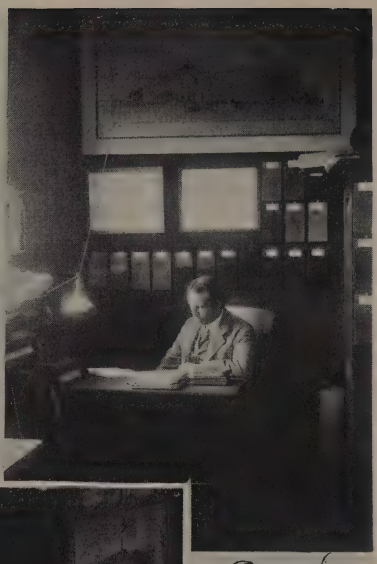
The faculty of the Chicago School of Architecture comprises that of the Armour Institute and the following: Louis J. Millet, Dean of the School, who is also Instructor in the School of Design in the Art Institute; Walter F. Shattuck, B.S., Professor in Building Construction, Descriptive Geometry, Graphic Statics and Perspective; William K. Fellows, Ph.B., Instructor in Architectural Design and Drawing, and Mary G. Hess, Instructor in Free Hand Drawing. Mr. Fellows has just returned from abroad, where he has been traveling and studying under the Columbian Scholarship in Architecture.

The students of this department, at present, number twenty-five; fourteen in the four year's course, divided among the four years as follows: seniors, two, juniors, two, sophomores seven, and freshmen, three; seven in the two years' course, four being sophomores and three freshmen; and there are also four students taking special courses in drawing.

Besides the clubs and societies of the Art Institute and the Armour Institute of Technology, to most of which they are eligible to membership, the students of this department have a society all their own. Only graduates and students of the Chicago School of Architecture being eligible for membership. Its object, as stated in its constitution, is "the advancement of architectural study and the promotion of good fellowship among its members." It at present has a membership of twenty-two, and holds its meetings every alternate Friday evening in the Art Institute building.

HORACE S. POWERS.





THE CHICAGO SCHOOL

OF

ARCHI-

TECTURE



ARMOUR

INSTITUTE

AND

ART INSTITUTE






MATHEMATICS
PHYSICS
C
B
A

Mathematics and Physics Department



THIS course has been established to meet the wants of persons who, while not caring to take an engineering course, may wish to avail themselves of the training and associations of a technical institution. To such are offered not only thorough instruction in mathematics, physics and chemistry, but also options in topics selected from the technical courses, and a wide range of other subjects, including history, literature, rhetoric, logic, psychology, biology, French, German, political economy and business law.

In particular, the course is designed for students who desire thorough instruction in mathematics and physics as a preparation for post-graduate work or for the purpose of teaching. It is tentative in its nature and a wide range of electives will be allowed. Special electives in instrument-making, glass-blowing, photography and manipulation of lecture apparatus will be offered for students who wish to become teachers of physics, and in the history of, and methods of teaching, mathematics for those who wish to become teachers of mathematics. The regular engineering courses of the Freshmen and Sophomore years will be regarded as an equivalent for the first two years of this course.

The course as planned is unique in character, but it is believed that the library, the laboratories and the shops of the Institute offer special advantages for the proper prosecution of the work. The development of the work along the lines both of Mathematics and Physics will be so co-ordinated that as the student acquires skill in his Mathematics he will find in the Physics an immediate application of it as well as a continued suggestion of the need of the advanced Mathematics.


THE FIRST CLASS '97.
M Miller

History of '97



JOLLY, happy-go-lucky, own-the-whole-earth sort of style,—serious when the occasion required,—with a large capacity for work and a willingness equal to the capacity,—such were some of the characteristics of the Class of '97, the first that Armour Institute of Technology graduated.

It is with no small degree of pride, and for which no pardon is asked, that the writer recalls the achievements of that class both prior and subsequent to its graduation.

Made up, as it was, of young men who were sober and industrious (exceptions are intentionally forgotten),—who were there for the purpose of accomplishing the most in the time allotted,—young men who recognized that a diploma is nothing more than a receipt for work done, and that it is about as much of an indication of what may be done as a receipt for money paid is of an ability to meet future obligations,—it is no surprise that they should be found filling the places they do to-day—and that creditably—positions that many a tried, experienced engineer would gladly accept.

Being the first class it was subject to the ups and downs and change-all-arounds of every new institution.

In a measure it was the dog on which new combinations were tried. It managed to live through,—though somewhat emaciated in the end. No better illustration of the general tone of the class can be given than the following: There came a time one day when the class felt that it was not getting enough work. A committee was promptly appointed to confer with the faculty about the matter.

It is reported that some of the professors did not recover for nearly a year from the shock of a class asking for more work to do. Be it said that the desires of the class were promptly fulfilled. On another occasion it was decided that too much work was being given for proper assimilation. The mental digestive powers of the class were diagnosed and subsequent meals apportioned thereto.

Some time during the second year of its existence, if the recollection of the writer serves him aright, the class organized and elected such officers as were needed, the same to hold their positions during good behavior until "graduation, death or desertion." No constitution was drafted. The president was given almost dictatorial powers as regarded the calling of meetings, etc. Being a pioneer class its organization strongly resembled that of most pioneers—an organization adapted to quick action in case of emergency.

The spirit of investigation—original research—was a noticeable characteristic of the class—markedly so at times. Prompted by this all-consuming desire to find out things, a member at one time tested the 110 volt mains with a milli-voltmeter, "just to see what it would do." To the uninitiated it might be remarked that it would have been equally appropriate to attempt to pry up a boulder with a toothpick. There was a flash, some


ARMOUR
INSTITUTE

smoke, and the indefatigable investigator found he had all the "results" for which he cared to pay.

In chemistry it was no uncommon thing for this interrogatory spirit to break out while waiting for a precipitate to "evaporate to dryness." It was frequently manifested in the attempt to see how much water, when quietly applied by means of a wash-bottle, a certain handkerchief could hold by capillarity,—said article for the time being occupying the hip pocket of some industrious, though perhaps not devoted, disciple of Fresenius. When the owner of the handkerchief made the anticipated discovery it was usual for the investigator to adjourn and let him think it over.

The first day that the class entered the blacksmith shop it assumed a reckless air of abandon that displayed itself in flying pieces of hot iron, wild sledge-hammer blows, and pyrotechnic displays of burning steel. In a few days, after several members had indulged in the recreation of picking up pieces of iron and steel that "looked cold" but felt different, there was thrown over the inquisitive spirit a sort of mantle of caution that manifested itself in first delicately touching every piece of iron before attempting to handle it, even though it had lain for a week.

To do justice to the history of this class would require the pen of a Gibbon or a MaCauley. The present writer hasn't the time. As a class, its history ended some time in June, '97. The exact date is not clear in the memory of the undersigned. There were several banquets that week.

Even in this brief interval of eight months the class has become scattered from the Atlantic to the Pacific. A few short years and it will suffer the fate of all college classes—sink into oblivion and matrimony.

The class may have had its faults, though they were never discovered by any member. It had aspirations—great, large, rosy ones. Its destiny, or rather the destiny of the men who comprised it, is a question left to the seers and prophets. However, it is the earnest wish of its humble historian that the hopes of youth, ripening into the resolutions of manhood, may some day give to the world the fruit of an honest purpose—a good work well done.



The Class of '97



HERE 'S to the Senior (each dog has his day),
Here 's to the Soph and his folly,
Here 's to the Freshman, all verdant and gay,
And here 's to the Junior so jolly.
Let the toast pass,
Drink to the class;
Their glory shall be our excuse for the glass.

Here 's to the class that is leader in all
The arts that are known under Heaven!
Then fill up your glasses and drink at my call,
The glory of old '97.

When in the future the classes shall come,
What though they labor and pass, boys,
Say, can they ever compel to be dumb
The voices that praised our first class, boys?

Senior day comes at the close of the year,
And 's the signal for old bonds to sever;
Then fill up your glasses to old Pioneer
And let us all toast her together!
Let the toast pass,
Drink to the class;
Her glory shall be our excuse for the glass.


SENIORS



Senior History



IS a story as old as the school and older. As fixed as the well shot arrow in its mark, so fixed is the position of the class of 1898 in the life history of "Armour." We lay claim to many interesting ideas tenable with us, convinced, with just pride, that we have realized our great heritage.

Therefore permit me, gentle reader, formally to present to you the first Genuine Senior class of Armour Institute of Technology.

Even now the blat of the lower classmen reaches my ears and I hear the same yearly call to their Gods to mark them in some manner of distinction that the world might know their High Selection. But such a manifestation has never occurred. Ah! never shall it occur. As long as ye shall read the INTEGRAL there shall ye find the same bombastic attempt, thrice repeated, to approach by artifice and sputtering logic the realm of the Senior. The experience of millions of Freshmen, Sophomores and Juniors through a thousand years and more is to them of no avail. We calmly hold a place prepared for us by tradition and the powerful cabal of several hundred very high priced annuals.

Through political and martial chaos have we passed and none dare now resent our sway. Therefore we advance to our first proposition. We are Seniors. And no further words are of necessity. 'Tis proved by a momentary return to consciousness or an examination of any standard History*. Now to advance further and to a field for reason. Some few months ago there was an exodus from out our gates of an ill tutored crowd. Long had they fed at our tables; much dyspepsia (5 cents per cut) had they obtained at the phantom lunch counter. Once a week through four years of daily car fare did this aggregation dispatch a committee to the first floor. They were an abomination to the office. In sheer desperation their committee was finally met and the terms of release were these: If, when June, 1897, shall come, these men (for there was but one boy in the class, and he over-grown) would depart, then would the authorities call them members of the first class of Armour. And so it came to pass. They are gone and the place shall know them no more. During the last term of attendance their reputations suffered a still further decline. Mr. J. J. Wheeler, Esq., obtained newspaper recognition for long endurance in the management of a gas engine

*_Vide_—HATCH "Tramping through the West," Vol. 1, pg. 13.


A I T
98
E.E. Blodgett.
G.H. Morris.
G.H. Patten.
L.H. Flanders.
W.E. Weinsheimer.
D. Mackenzie.
E.G. Hindert.
E.F. Kappes
E.H. Nagelstock.
E.W. Leeper.
H.A. MacClyment.
C.H. Roesch.
R.H. Gay.
H.J. Slaker.
F.S. Fairman.
MANZ CHICAGO

and at the same time brought down the wrath of all peace loving students and professors along Armour Avenue. Others of that body were equally notorious. They burned out dynamos, tore up transformers, revelled nights and slept in class. Little wonder indeed that our authorities should capitulate. It was praiseworthy in them to remember us. For four years that First Class had been tested with every old thing in the way of a course. We must appreciate their endurance.

What does all this teach us? Can we, who know the facts as they are, permit such deception on an unsuspecting public? Most of these graduates are on dad's wood-pile yet. So for the love of old Armour we will throw a mantle of charity over them and their breaks. Have I need of words to further fix our Record scroll in highest niche at Armour? (The class of '98 will here say Amen.) With our noble class, the four years have brought splendid results. A complete course has been ours. There are no empty folds in our grey matter. We have ever been the pride of the faculty. Scarce a convocation of that corps extraordinaire has passed in four years, without a praise meeting over our illustrious "conditions". Our Freshmen ranks were strong. Few there are here now to remember the first Field Meet—but those who attended Armour four years ago can't forget the Athletic Strength of '98. Indeed we won the most points. Many a strong man has left us—among our ex-members we can recall Apfel, Aspinwall, McCready, Coghill, Ewald, Wood, Wilhoit (now with '99), Humiston, Green, Harris, Kavanaugh and Shewel. These men are, almost without exception, doing good work in the practical world. Our numbers are now few but our activity should be an example for all.

Cupid and the Faculty have left us singularly alone. We have learned all that our authors ever knew and we have discovered many things they dream't not of. Behold our original investigator, the Worthy Leeper—watch him as he treads our Halls with step so light, ever buoyed up by the knowledge of approaching success in his chosen field of investigation, the ice machine. E. E. Blodgett—our own E square—the pride of Englewood, who hopes soon to sink into the soft snap of city inspector at 25c per lamp. No revelation has come regarding the destinies of the rest of us. The mighty Hindert will soon leave for the groves and dells of Minonk, diploma in hand. Too bad that this man's last Foot Ball Season has been valueless to him. In the midst of our first Commencement Season we banqueted our predecessors right royally. And the jokes perpetrated by '98 were warranted as fresh as any used on that occasion.

Finally we guarantee that our class colors shall not offend—that our class pin shall be 18K fine—that our coats for Commencement Day shall fit just as well as a $2.00 a day coat can. What more can be desired? The vexations of school life are almost over; we've taken our turn at the Fount of Knowledge. Soon the world will hold us in a cold, pitiless grasp. Then shall our hearts be warm for Alma Mater. What success is ours to attain—what help we can offer mankind—the motive of it all, the ground work of our lives has been laid in class rooms under the kindly eyes of splendid masters.

Sirs, we appreciate this opportunity, and in farewell will say that through future years "Our" Professors shall lead us still.

May the achievements of the class of '98 be helpful to you in finishing your days of service to mankind.

VALE.



Organization of the Senior Class

Officers

President — R. H. Gay

Vice-President — E. G. Hindert

Treasurer — D. MacKenzie

Secretary — E. W. Leeper

Motto — "Fram."

Color — National Blue.

Yell — "We are the People—We'll Set the Gait; Armour! Armour, '98!

Members

L. H. Flanders

E. E. Blodgett F. S. Fairman

R. H. Gay E. G. Hindert

E. F. Kappes E. W. Leeper

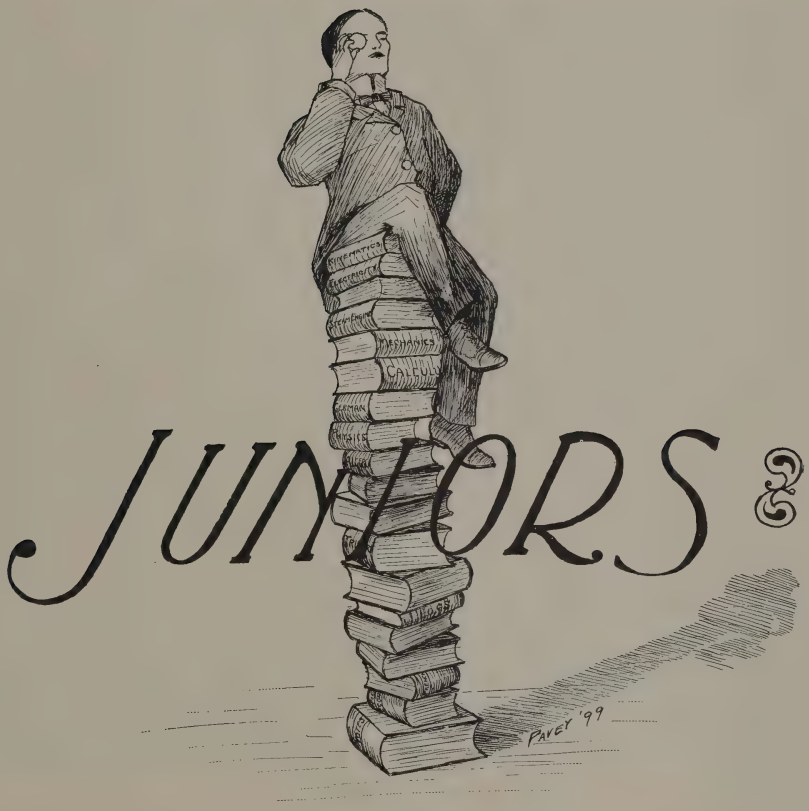
H. A. MacClyment D. MacKenzie

G. H. Morris E. H. Nagelstock

G. A. Patten C. H. Roesch

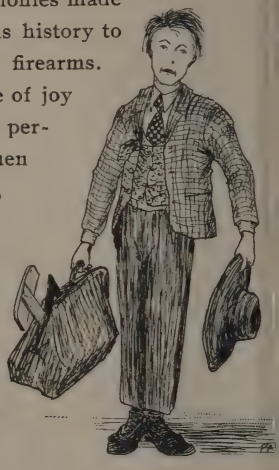
W. E. Weinsheimer

H. J. Slaker


JUNIORS
PAVEY '99

History of the Class of '99

IF it should appear to the kind reader, upon perusing the above title, that a place has been given in this book to something that is too well known to the students of our college to need the pen of a historian to record, he must not turn with impatience to the advertisements, or other equally interesting matter, and neglect this essential article, but must remember that when new, timid Freshmen—in contradistinction to old, own-everything Freshmen—enter our classic halls and sit peacefully in their lecture rooms, waiting for some tardy Prof's appearance, listening enraptured to the sweet symphonies made by the concord of clanging bells and rushing wheels, they will need this history to stir them to energetic battles with chairs, desks and other peaceable firearms.



Yes, thirty-seven years hence, when dear Armour in an exuberance of joy will have extended its present quarters by acquiring the use of three, or perhaps—who can tell—four of the adjacent blocks, the new, timid Freshmen will look over these pages and at once call an important special meeting, and after calm deliberation, adopt some such resolution as the following:

WHEREAS, The annals of the school show upon its pages the life of a great class called the Class of '99, and

WHEREAS, From its history we note that it was composed of men of character, energy, good fellowship and scholarship, and

WHEREAS, The class as a whole appeared to have a heart that went out in sympathy to all members of the opposite sex, therefore be it

Resolved, That the Class of 1935 "stick by" each other in an earnest, if not successful, endeavor to emulate the famed Class of '99.

Thus, kind reader, you see that by this means class spirit will be developed and Armour's fame extended. So peruse this history as you would re-read one of Shakespeare's plays—enjoy its literary excellence and laugh and sob again at the things you know so well.



The Class of '99 was born on September 13th, 1895. The faculty, for some unexplained reason, did not have a brass band or the glee club on hand to meet us. It has developed since then that the glee club and Class of '99 are almost synonomous organizations—hence its failure to appear. Some one started a petition* to the President, however, to get a written apology from the faculty for its neglect in not providing a brass band; but two members objected to signing this petition on the ground that the class failed to officially notify the faculty of its birth. Of course the petition fell through—the Class of '99 never acts except unanimously.

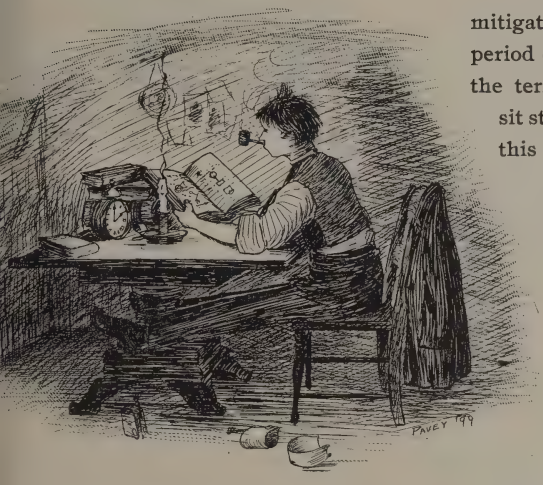
The first day on earth was spent in wandering around the corridors gazing at one another, "ponying up" to the registrar, and looking with admiring awe at the rotund paunch of "Papa" H——ch as he delivered to us sage words on the

*Petitions have always been '99's specialty.



infinitesimal theory and empirical practice of the Boston-Tech-Faunce method of mechanical drawing.

The fall term that followed served to dove-tail us into a joint that needed no sawdust and glue to fill the cracks. We became as one, and since that time have acted as one. Let the future aspirant for such honors as '99 has gained note well this (.) point! During the three months of this term we became intimately acquainted with a certain instructor of mathematics who had a tendency to become "balled up," but, owing to the considerate treatment he received at our hands, did not become mixed more than an average of 6½* times per recitation period. In this short space of time, three months, we almost ceased to tremble at the sound of "Papa" H——ch's pompous voice. In point of fact, we began to have a suspicion that he was not as great a man as the President of the United States, and it commenced to be whispered around that the Board of Trustees had not given him a half interest in the school.



Christmas vacation was looked forward to with mitigated joy, for between us and that much needed period of rest lay a grim bogie man in the shape of the term examinations. '99, be it known, did not sit still and wait with trembling for the coming of this monster; but the gas company was notified to increase the capacity of its meters in the houses of its members, so that more light might be thrown on certain dark and intricate subjects. Many a time and oft, during that pre-examination period, that same old pre-exam. sally was indulged in, namely, that we were so anxious for the examinations to come that we staid up late nights simply to enjoy the pleasure of anticipation. It was rumored at a later period that the class staid up so late those nights that when the examinations actually arrived it was too weary to do full justice to itself.

However that may be, we came back from the vacation with broad smiles on our faces, apparently as happy as if no such thing as a flunk existed on this mundane sphere, and congratulated one another on our varying successes in the aforesaid exams.

Time went on (as time will), and at intervals the monotony of the class-room was relieved by curtain-lectures, delivered by various professors, on the propriety of playing baseball with the furniture. Save these little diversions, the winter was composed of hard study and harder examinations. Each of the several professors always made it a point to impress upon us the importance, nay, the necessity, of devoting at least two hours each evening to his subject alone. Ninety-nine always loved to grant Prof's little whims, but owing to our unfortunate physical construction that demanded a minimum of two hours sleep out of each twenty-four, we were compelled not infrequently, to disappoint one or more of them. This is quoted as a feature of the winter term:

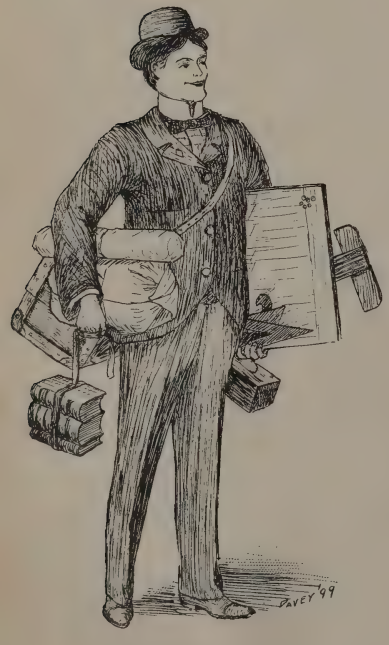
"'Tis not so, oh, sad, sad thing to tell,
This is a feature of every term as well."
ANONYMOUS.

In the joyous spring term, '99 showed itself to be a power that would never have to stand defeat in Armour Institute of Technology athletics. The Field Day of '96 was composed of a series of monumental victories for us.

*Kindness of the class statistician.

At the end of the long summer vacation, the class slightly diminished in point of numbers, came back and we held our heads high in the proud realization of the fact that we were Sophs. Yes, noble Sophomores! It seemed hard to believe that but a short year ago we were in the boots of the green looking Freshmen, who, from their appearance, would cause many a good professor to grow gray haired trying to help them climb the steep and tortuous paths of scientific knowledge. As Sophomores, however, we were by no means the traditional second year's men — we were not bigoted; we merely did things that commanded respect. We furnished musical talent for the musical clubs; football talent for the football teams; literary talent for the literary societies, and baseball talent for the baseball club. We partly established the honor system in our examinations and probably, this year will completely establish it. We held the first class banquet that Armour Institute of Technology has produced, and through our untiring efforts, we induced the faculty to tender to the college frequent receptions. In that same Sophomore year, we challenged the whole college to meet us in combat on the track and field, and came within an ace of defeating them. We came out victorious in a gallant fight with the intricacies of "Descrip," not a man having failed to pass his final exam. The first case on record! We listened with Spartan patience to stale jokes resurrected from the dead by a certain instructor of machine drawing, and even made a gallant attempt to laugh at them. Oh! We did many noble things! We defeated the class of '00 in a game of base ball; score, 48 to 14. That tells the tale. But the greatest of all our achievements speaks for itself. We originated, planned, and gave an active beginning to the idea of issuing this, our proud INTEGRAL published in our Junior year, the first Annual, Armour's students have published. How well we have succeeded in this undertaking, modesty demands that others decide.





And now our history must stop. We have reached the half way post in our career, and as we gaze back on the two years of study, the hard word and irritating happenings are hidden in the almost impenetrable mist of willing forgetfulness, and standing boldly forward from this dark background illuminated by the bright light of fond remembrances, we see with grateful hearts those delightful occurrences which have made our college course worth taking. Whatever difficulties the two remaining years have in store for us, be assured, that the Class of Ninety-nine will overcome them, and that when in eighteen hundred and ninety-nine we are launched forth upon the tempestuous sea of business life, our dear Alma Mater can have the confident belief that we will steer our ships, through wind and storm, straight to the safe ports of success in our various professions, and thus prove an everlasting honor to our beloved Armour Institute of Technology.

MEMBERS OF '99



Officers

President—Erle Sidney Roos
Vice-President—Horace S. Powers
Secretary—Edd V. Starkweather
Treasurer—Ernest C. White

Color

Maroon

Yell

Arch, mech!
Chem, elec!
'99 Armour Teck!

Roll

William H. Beattys, Jr.
Arthur J. Burr
William T. Dean
Samuel C. Fiddyment
William J. Gordon
Ray S. Huey
Morris W. Lee
Eugene W. Lyman
Oscar B. Marienthal
Charles S. Morse
William B. Pavey
Horace S. Powers
Bela de Rimanoczy
Carl Schroeder
Edd V. Starkweather
Otis N. Terry
Frederic S. Wilhoit
William Warren
Sumner E. Bippus
Sidney T. Corey
Louis Elliott
A. Homer Goodhue
George K. Hanai
Ernest C. Johnson
Charles T. Lewis
Louis F. Mahler
Will D. Matthews
Elmer H. Olson
Chauncey O. Ransom
Louis I. Porter
Erle S. Roos
Benedict Shubart
Clarence L. Tarbell
Fred W. Twichell
Ernest C. White

The Birth of the Integral



If you wish to know the secrets
Of the Editor-in-Chief—
How he gleans his grain with labor,
How he binds it in the sheaf,
How he threshes it in patience,
How he blows the chaff away,
What he uses for the graining
'Ere you eat of it to-day,
I can give to you an inkling
Of the method and the thought,
I can tell you in a figure
How the miracle is wrought.

If you have a complex function
Which you want to integrate,
You must mould it as you need it,
And the work thereof is great.
You must have the terms consistent;
You must know its form, and see
That the differential element
Is in its place, as it should be.
Then must limits be determined,
'Ere the process is begun;
Finally the integration,
And the operation's done.

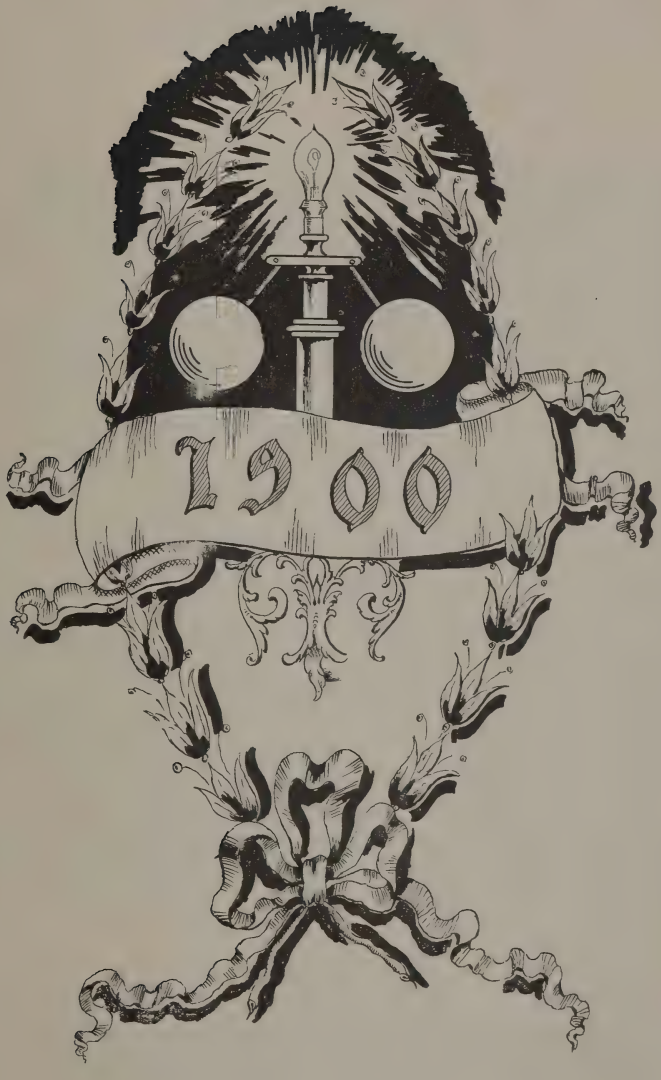
Given, then, a mass of papers,
Deluged with a sea of ink,
And required their integrations—
Editors were made to think.
First, the mass must be worked over—
Organized in shape anew,
For its form must be consistent,
To its purpose fit and true.
Next, the worker to each fragment
Adds the factor of his thought,
Adds the element that's needed
'Ere the summing can be wrought.

He must know the scope and limit
Which to give the finished work;
This precedes the integration,
All this toil he must not shirk.
Finally, there comes the summing,
Comes for toil fruition meet,
Finished is the integration—
Lo, the "INTEGRAL" complete.

—ANONYMOUS.



Main Hall—Armour Institute of Technology



W. H. HOWL
⇒ DESIGNER ⇐
⇒ DELTA ⇐
Ω



Sophomore History



EARLY in September, '95, we began to be. We spent the first two or three days in looking around at what we were told were the "Profs.," of all of whom we formed favorable opinions; then, later, when we had more solid ground on which to base our views, we began to—but possibly it would be best to stop, lest some might feel embarassed at receiving praise of which they modestly deem themselves unworthy. It is a noticeable trait of all truly brilliant men that they never force themselves into public notice, and that they dislike to have their merits publicly lauded.

We had a fairly large class, and the members thereof immediately proceeded to distinguish themselves, both severally and collectively. We were always noted for our class loyalty and for eagerness on the part of each one to do all that he possibly could to further the interests of the organization. This was particularly noticeable in the attendance at our regular meetings, which once reached a number as high as eight. The elections were, therefore, always extremely exciting on account of the large number of candidates for office as compared with the number of voters.

It was't very long before '99, in its arrogance, expressed a desire to wipe up the gymnasium floor with us—said wiping to take the form of an indoor athletic meet of about ten events. A prominent member of '99, after prophesying in a gentle and sympathetic manner about the coming defeat of 1900, wound up with the remark, cheerfully and condescendingly made, "that it would be the best joke of the year." It was. '99 got two or three events—modesty forbids our stating what became of the rest—including the pole vault, half-mile run, 30-yard dash, broad jump, and several others, excepting the wrestling event; we have forgotten what did become of that.

Then, too, there was Field Day. To be sure, we didn't get that mile bicycle, but then—pole vault, broad jump, half-mile bicycle—it might have been a deal worse. And we have things all our own way this year on the Athletic Board, with four members.



Especial mention of all of our different classes is unnecessary and would require volumes. However, the Electricals desire to put on record their appreciation of the extremely lucid method in which machine drawing was presented during the first five or six weeks of the Autumn Term. They say that it was totally different from the primitive line of action heretofore pursued by schools which were, in no sense, *fin de siecle*, and they believe that when the great advantages of the system are fully appreciated it will be generally adopted.

We have been so long accustomed to being told that the German Universities are far in advance of anything on this side, as regards learning, methods of instruction, etc., that we feel quite puffed up with pride, which is surely pardonable, that such an innovation should have been evolved in all its beauty, here at Armour, and, above all, that 1900 should be the first class to be benefitted thereby.

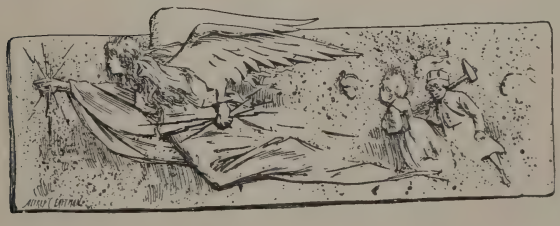
Of our new members this year, there is little to be said. We are not very well acquainted yet, and, under the circumstances, we think it best not to make any personal remarks or comments, but merely to give a list of their names to show that they are, by no means, forgotten. The list is as follows: (Compiled from statistics furnished at the beginning of the year through the kindness of several instructors.)

FLINT HANSMANN SKLOVOSKY

SOUSLEY WEDLEY

We have suffered a great loss since last year in the person of a member of German extraction who is said to have taken a freight for Streator, last June, and gone back to the farm, thereby realizing a wish privately expressed by one of the lights of the Electrical Department, said light having gained several pounds in weight and appearing more robust this year than last, presumably as a direct result of the fulfillment of the above-mentioned wish.

We shall never forget him and his "Well, Professor," nor shall we soon forget the dark-eyed damsel who wrangles over Industrial History with our loquacious instructor (who is *not* a Professor, by the way); but, Professor or not, the class of 1900 will forge ahead, surmounting all difficulties, creating as little disturbance as possible, and finally by thrift, perseverance, and ability, will endeavor to make such a name for itself that Armour will be proud to say, "Well done, my sons, the palm is yours."



To '01

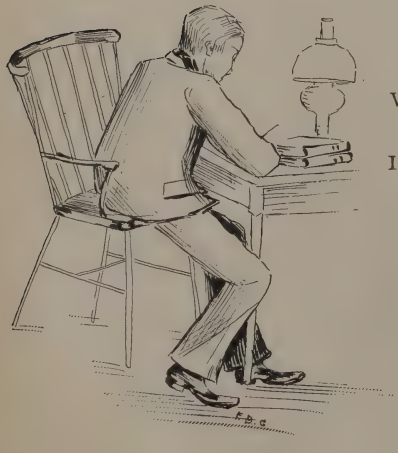
I

THE golderndest, homeliest jay
'At ever come to college,
Yet I'm gitting in the way
O' 'cumulatin' knowledge.



II

First I came—didn't have no more idee
O' what I orter do!
Now I've got a sweater
'Nd a cane—'nd smoke cigarettes some, too.



III

When I've been here a little longer,
Jes' look out for me!
I'll be the slickest looking feller
'At you ever see.

FRESHMAN CLASS



1901

Class of 1901



IHI IN PRIMIS ARDUUM VIDETUR RES GESTAS SCRIBERE.

It seems to me especially hard to write history. And the difficulties which confronted Sallus are increased many fold, when there is no history to write. He complained of the troubles of writing of "acts accomplished," and enlarged upon the glory to be gained by the historian's achievement. How much greater, then, must be the obstacles in the path of the historian whose *res gestas* are still unaccomplished, and whose glory is a vision of the far distant future.

To say that the class of 1901 contains all the students worth mentioning in Armour, would not be true. There are a few Seniors. To say that the greatest aggregation of intellectual brilliancy, the most monumental collection of football and other genius of the student body is contained among its members, would not be becoming. Such a statement would also be unnecessary.

The position which this class has held since its organization is unique.

No class has ever dared, or wished, to compete with it.

Our first meeting was held, and the class organized, late in September, '97. The business consisted of the adoption of a Constitution, the election of officers, and last, but not least, the collection of dues. Owing to the recognized pre-eminence of the class, nothing further was necessary. In one of our class meetings, an outsider, even though of extraordinary intelligence for an outsider, is completely lost—in fact, swamped.

Since our organization, we have taken a back seat, as it were, in the activity of the various classes, and have held no business meetings. This is due, no doubt, to the wholesome fear of the members that the next meeting will bring a special assessment. The most important recent event in our history was the taking of the class picture. Notwithstanding the frantic efforts of one insane Junior to get into the picture and ruin the general appearance of learning thereof, and, failing in that, to create disorder among our ranks, the patience of our photographer was at last rewarded, and our face, as a class, adorns a page of the INTEGRAL. The college knows well of the origin of the "Fulcrum," and mere mention of that word will suffice.

Conscious as we are of our superiority in the future, we have chosen no colors except the yellow and black of Armour. Those were chosen for us, and we have kindly accepted them. This was done partly for economic reasons. A college man is supposed to feel a certain thrill of loyalty when he beholds the colors of his class, even on a yellow dog. But he must also thrill at the sight of the school colors. It is, therefore, evident that a great and useless amount of thrilling is saved by having only one set of colors. It also saves ribbon.

With a steady, unfaltering purpose, we follow the course of the acquisition of knowledge, we tread in the path worn by the feet of scholars. We aim to become, by patient, persevering, constant effort, the greatest, the most original, and the most famous class that shall ever have gone out before Commencement Day, 1901, from the classic halls of Armour Tech.







ILLUMINATED WINDOW

PRESENTED TO THE INSTITUTE
BY THE CLASS OF '97, ACADEMY



President—Harold Mayer
Vice-President—Lucia Vreeland

Treasurer—Ralph Harlan
Secretary—Rebecca Day

Class Colors—Dark Blue and Gold **Motto**—*In litteris libertatem*

Arthur H. Anderson
Aaron A. Andrews
Marion W. Briggs
Chason W. Brooks
Harry C. Champlin, Jr.
Reyburn T. Chase
Beulah Cohn
Ward O. Collins
Russell R. Davenport
Rebecca S. Day
Winchester Whipple Felt
Edna B. Garrison
Carrie Greenebaum
Henry R. Harbeck
Ralph P. Harlan
Corinne I. Hart
Marion Hart
Howard A. Hess
Gertrude L. Hiatt
Roy L. Hunter
Frank P. Illsley
William J. Keene
William Lang
Clarence E. Lewis
Harold S. Mayer
Albert J. Pfordresher
Walter Putnam
Frank G. Packard
Elsa B. Rockener
Louis A. Sanford
Oscar Scheidler
Lucia L. Vreeland
Edward H. Wachs
Louis H. Weinmann
George R. Willis
Milton David Wormser
Charles J. Young

* * *

Members of the Class of 1897, A. S. A.

Alice Austrian
Robert Harold Bacon
Earl Head Baker
Matthew Chauncey Brush
Wm. Harry Buchman
Wm. James Campbell
Herbert John Campbell
Irene Jean Crandall
Marian Fairman
Leonard S. Florsheim
Robt. T. Fry
Harry B. Hamlin
James M. Herron
Norton F. Higginson
Howard F. Holman
Alfred G. Langworthy
Walter I. Lewis
Fritz A. Lindberg
Milton L. Livingston
Arthur Loeb
Walter E. Miller
Walter E. Prussing
Fred D. Ray
Francis B. Riley
Blanche B. Rosenbaum
Edwin P. Ryan
Graham E. Shand
Arthur S. Shaw
Edward A. Smith
Thomas W. Stevens
Lizzie Veatch
Ernest LeRoy Wallace



CLASS OF '98—ACADEMY



CLASS OF '97—ACADEMY

LITERARY AND OTHER ORGANIZATIONS



The Scientific Academy

Motto

"Eat, Drink and be Merry"

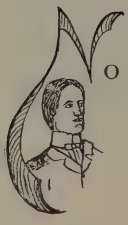
Color

Green

Yell — Zip! Boom! Rah!
Re! Rah! Rep!
Vive La! Vive La!
Measley Prep!

Favorite Toast

"Here's to Dean Roney"



O class of humanity has suffered more from men than that acephalous conglomerate body of truth-seekers, the Preps. They are not, in truth, what men have portrayed them. 'Tis true some have recently left their rustic places of birth and brought with them the emblem of agricultural pursuits entwined in their unmown locks. Some wear a faded garb and rest their feet on pegged soles, but underneath, within, and above all this, there beats a heart, not contrite indeed but patriotic, full of honest purposes, noble aspirations and lofty sentiments. Why malign this untutored existence? Why hurl opprobrious epithets at these? Out of what have all ye come who do these things? From whence Gov. Tanner, Prof. Bley, and short circuit "Huey?" Let fools revel in ridiculous raving, but, for me and mine, we shall praise the Preps. These are they who dare and do, who on (k)nightly adventures are of all the best.

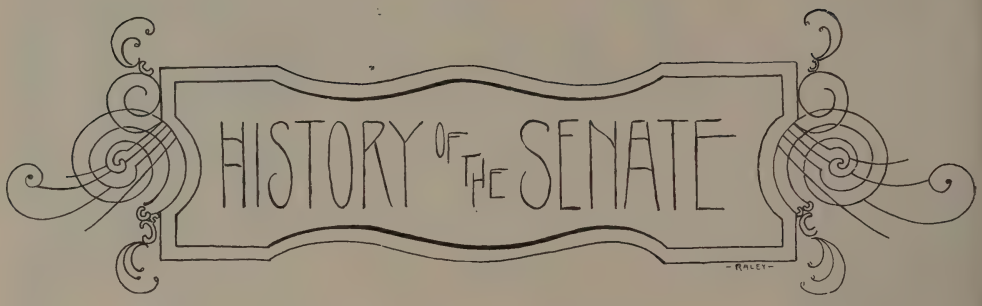


There was a Prepdom, humble of spirit, bashful, modest, unconscious of self,— that Prepdom is past. There is a Prepdom, living, growing, contesting, courting, banqueting, eye-glassed, striped-trousered, curly-haired, — that Prepdom is now.

It is time the crooked ways were made straight,— that the curtain should be drawn aside and men, impartial and unprejudiced, should see and know the characteristics of this brigade that lives and moves and has its being in this Mecca of the learned. Then should all, not revile but revere, not scorn but salute, these embryo collegians.




THE
SENATE



AFTER the enthusiasm, due to the opening of an institution of learning such as the Armour Institute, had practically subsided, after instructors had been met, books procured, and the general newness of things had worn off, it occurred to some of the students that the formation of a debating society was the next thing in order. Accordingly word was passed to a few who were similarly inclined, and a meeting was called. From this meeting dates the acquaintance of many of the men who laid the foundation of what is now known as "The Senate Society of Armour Institute of Technology."

The object of the Senate, as stated in the Constitution, is to "study the Arts and Sciences, to debate, and to advance the social welfare of its members."

The charter members were as follows:

Messrs. W. S. Ferris, W. T. Apmadoc, A. R. Shannon, J. R. Hauch, R. N. Stewart, W. J. Gordon, H. H. Barclay, W. H. Fiendt, Jr., J. W. O'Leary, and C. L. Tarbell.

All male members of Armour Institute of Technology are eligible to membership, but it was thought best to limit the number of active members to twenty-five, in order that each man might take part in the literary program as often as possible and consequently acquire the ability of addressing an audience.

Notes are not allowed to speakers without special consent from the Literary Committee. This is seldom sought, however, since the members appreciate the value of being able to follow their subject unhampered by papers, and are eager to avail themselves of the advantages which the programs and open meetings offer to them. Members are called upon frequently by the chair to speak extemporaneously upon miscellaneous subjects; also after every vacation each member gives the society an account of what he has seen during that time.

The new organization started into work as unconscious of the pitfalls of parliamentary law as though "Roberts' Rules of Order" had never seen the light, but one day a certain malicious member found the volume, and for no other reason than to see the "chair in doubt," brought up a motion whose order of precedence none but himself could tell. The excitement was intense! Pandemonium reigned, and the air was full of question marks and tooth picks! From whence comes this being, and continuing thus, where shall he end? (Loud cries of vengeance.) Shall we be run to death by being compelled to follow at the



heels of an A. D. T. messenger boy for an hour, or shall he suffer a slow death by electrocution? All was chaos, when suddenly the room became as dark as a night in the forest during a storm—the engineer had turned off the lights. Later the source of his* wonderful knowledge was discovered, and from that time on it became a fad to introduce intricate points in parliamentary practice until all were familiar with them.

Time passed on and the Senators, longing for new fields of usefulness, resolved to start a college paper. After all the plans were laid, costs computed and arrangements made for publishing, a committee was appointed to wait upon the President of the Institute and lay the matter before him, asking for his permission and help in the enterprise.

* * * * * * * * * * * * *

The paper has never been published.

What was to be done next was the question, when a certain Ferris arose and proposed that each member cultivate a goatee "one-half inch square." Despite the most desperate efforts of the beardless youths, the motion was carried, and at the next meeting when the members were called forth to produce their "growth" or show cause why they should not be punished for contempt of court, 'twas only by the cool headed rulings of the President that a panic was averted. Jim Wiley is said to have been so mortified that he took dust from the floor and applied it to the spot where the hair should have been, rather than confess a total failure.

The President and Faculty of the Institute are ex-officio honorary members of the Senate, and occasionally men who have been raised to the highest offices by the people have been placed upon our membership list. Accordingly when Grover Cleveland was re-elected in '92 by such a large majority the Senate immediately did him the honor to place his name on the list. We do not discriminate between political parties, and it was only the effects of a then recent banquet upon our treasury that prevented us from sending an embossed copy of congratulations to Major McKinley after his election in '96.

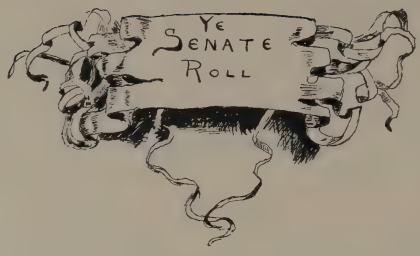
We meet every Friday at 5 o'clock, and have a literary program and business meeting usually lasting from one hour to an hour and a half. The meeting is the happiest hour in the week, but the greatest of all great joys is occasioned on that one evening in the year when the Senate holds its annual banquet. There it is the pleasure of the old and the privilege of the new members to meet the men who have left us to take up their work in the practical walks of life. Together we enjoy the stories of "A" and the wonderful love exploits of "B," while we "drink our ———— with laughter free." The feelings which the members have toward the Senate is best told by the following scrap of conversation which took place between three members as they left the last banquet.

(A.) "I'm proud to be a member of the Senate."

(B.) "It's the best thing out."

(C.) "You bet."

* The malicious member, not the engineer.



Officers

Will D. Matthews	President
Edd. V. Starkweather	Vice-President
Eugene W. Lyman	Secretary
Ernest C. Johnson	Treasurer

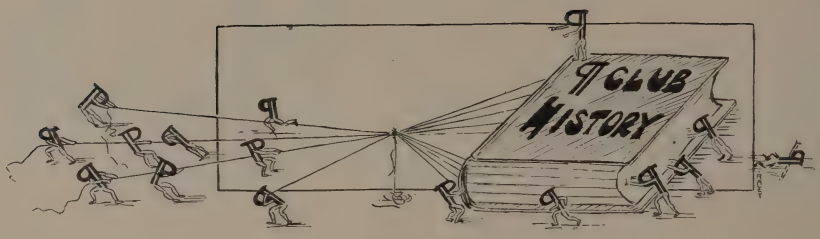
Members

W. D. Matthews
W. J. Gordon
C. L. Tarbell
Carl Schroeder
E. V. Starkweather
E. W. Lyman
S. E. Bippus
E. C. Johnson
E. S. Roos
L. I. Porter
H. A. MacClyment
E. C. White
L. F. Mahler
T. W. Stevens

Incoming Officers

Louis I. Porter	President
Ernest C. White	Vice-President
Louis F. Mahler	Secretary
Sumner E. Bippus	Treasurer


THE
PARAGRAPH
CLUB



IT is my privilege to chronicle for the benefit of posterity the history of an organization comprising the most transcendent talent and the most peerless beauty that ever trod the classic boards of Armour Institute of Technology.

The name of this organization is the "Paragraph Club," the significance of the name being that it hopes in the near future to become a "Chapter" in a fraternity.

The object of the club, as modestly set forth in the constitution, is, "the promotion of the social qualities of the members." It has many other lofty aims, however, such as, charity, self culture, the introduction of civilization into the Institute, the promotion of, and the greatest good to the greatest number.

The disposition of the club is proud and reliant, bold and defiant, yet sweet and alluring, long suffering and enduring.

The personnel of the club is aggressive and progressive, enterprising and up to date.

The early accounts of this world-famous organization are so confused with mythology that it is impossible to separate history from fiction. All that is recorded is a series of propositions and disputes, a great many arguments, and much contention, but from this entanglement of strife and bloodshed arises the majestic form of John O'Leary, calm and unruffled (some maintain it was Charles Malcolmson), with yet a new proposition, which is the frame work upon which the present organization was built. This proposition was that a certain number of students from the Technical and Engineering departments should organize into a club which should eventually become a chapter in a fraternity. The members from out of town should live in the club rooms and the rent paid by them should defray current expenses. It is recorded, I believe, that but one man disapproved of this proposition, several were indifferent, but the greater number were enthusiastic about it. Meetings were held to discuss plans for the organization, and as John O'Leary was the father of the scheme, it was unanimously decided to elect him president. Many have noticed a similarity in the careers of Mr. O'Leary and his renowned forefather, George Washington. Mr. O'Leary immediately appointed a number of committees (no doubt he borrowed this idea from the United States Senate), for the purpose of submitting the proposition to Dr. Gunsaulus, and for visiting neighboring colleges to investigate the matter of obtaining a chapter. Dr. Gunsaulus favored the scheme, and has aided the club in many ways.



Quarters for the club rooms were obtained in one of Mr. Armour's modern, steam heated and well arranged flats, and the members displayed the taste for which they are celebrated, in furnishing these quarters. Several of the men immediately moved into the rooms.

As the members saw their plans one by one materialize, it occured to them that this organization was scarcely adequate, so more meetings were called, a new constitution was drawn up, a charter obtained from the state, and a new president elected. The members deemed it wise to elect a president from the senior class, and accordingly, Charles T. Malcolmson, '97, was chosen.

As the organization was then in running order, and as the chief object of the club, as set forth in the constitution, was training the members to conduct themselves properly in polite society, it was decided that they should begin their practical course in deportment with a house warming at the club rooms. This affair was a howling success, and the club rose to the distinction of being mentioned in the city papers. There never was witnessed a more brilliant array of youth and chivalry. This was the crowning achievement in the life of the club up to that time (May 12, '97). It was the first opportunity given outsiders to admire the taste of the home-furnishing committee, and the outsiders were very appreciative. Since this time the doors of the club have been open to its friends who are not slow to avail themselves of its hospitality and who watch its growth with deep interest.



The Paragraph Club



Officers

President — H. A. MacClyment
Vice-President — Edd V. Starkweather
Secretary — George F. Hayden
Treasurer — William J. Gordon
Cor. Secretary — Erle S. Roos
Sergeant-at-Arms — George A. Feindt

Members

H. A. MacClyment, '98
Edd V. Starkweather, '99
George F. Hayden, '00
William J. Gordon, '99
Erle S. Roos, '99
George A. Feindt, '00
Charles Garcelon, '00
Sumner E. Bippus, '99
Will D. Matthews, '99
Ernest C. White, '99
Frank Y. Low, '00
Robert J. Raley, '01
Fitzhugh Taylor, '00
George H. Patten, '98

Pledged Members

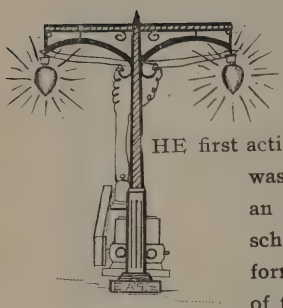
Chas. H. Roesch, '98
Walter E. Miller, '01

Alumni

J. Richard Sloan, New York
B. H. Glover, A. I. T.
C. T. Malcolmson, Anaconda, Mont.
W. F. Sims, Chicago
E. S. Church, Philadelphia
W. A. Derby, Chicago


TECHNICAL
SOCIETY

The Technical Society



THE first action toward the formation of a purely Scientific Society in the Institute was in the Fall of 1893. At that time Mr. Rice conceived the idea that an association of students, selected from those most interested in their school work, would be beneficial to its members. The aim was to form a company of students who would be willing to devote some portion of their time and energy to the study of subjects closely related to those under discussion in class-room and laboratory. This society was to be auxiliary to the regular school work and was to supplement and add interest to that work in any manner that seemed feasible. By a free discussion of school-room topics and related subjects it was thought that considerable interest might be aroused which would stimulate to greater efforts.

Such a plan was outlined and presented to the Dean of the Faculty, by whom it was received kindly and given careful attention. A quiet canvass was made of the College Freshman class — which at that time comprised all the College students — and the general sentiment was greatly in favor of such an organization, but a feeling was shown that its maintenance would require more time than was then at their disposal. The class, owing to unavoidable circumstances, had very heavy and unusual demands made upon it, and rather than invite failure to the organization it was decided to postpone action and await a more favorable opportunity.

About a year later — sometime in the winter of 1894-1895 — Messers. Manlove, Humiston and Wilhoit thought the time auspicious for the inauguration of the society and took the first steps toward that end. These worthy gentlemen were so thoroughly imbued with a sense of humility that they concluded it would be presumptuous for mere Freshmen to undertake the task unaided by the superior experience and wisdom of the Sophomores. So Messrs. Sheibley and Rice were consulted and asked to take the lead and add the power of their sophomoric position to the cause. These four gentlemen were thus banded together as a self-constituted committee to perfect the organization.

The two college classes were canvassed to ascertain the general attitude on the subject, and, as a result, the committee invited a certain number from each class to attend a mass meeting and there form an organization. Those chosen at this time were selected because of the interest shown and because they could give promise of hearty support. This first meeting was held on March 19, 1895, and Mr. Rice was elected Chairman, to act until the organization was perfected. A committee consisting of Messrs. Freeman, Sheibley, Neilson, Humiston and Carpenter was appointed to draught the constitution and by-laws. This Committee acted with great care and deliberation, and on May 17th, presented its report. At a meeting held May 27th, the constitution and by-laws were adopted in their entirety and the constitution signed by all present. Twenty charter members were taken, twelve from the Sophomore class and eight from the Freshman class. The election of officers was then held and the society was adjourned to hold its first regular session in the Fall term of the following school year.



This meeting was held on October 17, 1895, and was a very successful one. The subsequent history of the society may be found in the Secretary's record, but a glance over the list of papers presented during these last two years will reveal much of interest. The subjects are mainly such as are of interest to engineering students, but the element of literary character is not lacking. The papers presented have been written in forcible and entertaining style—the degree of favor with which such productions are always received supplying the necessary incentive to careful and conscientious work.

Electrical and mechanical subjects naturally constitute the larger part of the topics, for it is within these lines that the school work of the members is principally confined. Subjects of a general scientific or philosophical character are often given a place so that no tendency to narrowness or one-sidedness of view will be encouraged by the society. Biographical sketches occupy a conspicuous place and these are always welcome, for progress in large part is measured by the advancement of individuals, and by a study of the masters, we learn to know the results of their labors. Special study of some particular mechanism, a knowledge of which would be beneficial, is encouraged, and the results of tests or individual investigation in laboratory or commercial work are gladly received. In this manner the society became a place for exchange of ideas, and information gathered by one became the common property of all. It was found that men of standing in commercial and professional life were very willing to add their support, and a number of such men have favored the society with their presence and have shown their interest by addressing it on their chosen topics.

The membership of the society has always been made up of the best students and has held in its ranks the acknowledged leaders in all branches of school work. It was here that the question of a college paper was taken up, discussed and finally dropped as impracticable at that time. The society undertook to secure the adoption of a college pin and carried it to a successful issue. The very tasty design, which is now the College emblem, was the work of Mr. Malcolmson, one of the Society's members. Any plan which touched the interests of the student was given due consideration, and it was here that many questions were discussed and settled—the influence of the Society being such that its verdict was accepted as the verdict of the whole student body.

But with all the earnest work done by the Society there was still an opportunity for the exercise of the pure fun-loving faculties. The initiation of a new member was the occasion for a less rigid observance of that dignity which each member was supposed to possess, and an occasional "feed" was very enjoyable—it served to increase the feeling of fraternity and goodfellowship so necessary in college life. It also tended to keep our financial accounts in such a state of simplicity that one might say the Treasurer's reports were of no account at all.

The "Technical Society" has always stood in the closest relationship to the faculty and has been favored in many ways. The use of all needful apparatus has at all times been tendered us, and no request has ever been refused when benefit to the Society was at stake. This liberal policy on the part of the faculty shows the esteem in which the efforts of the Society are held, and it behooves each member to exert his influence to maintain these cordial relations and to make the Society a power in the student-life of the School.

TECHNICAL SOCIETY ROLL

Officers

W. E. Weinsheimer	President
F. S. Wilhoit	First Vice-President
Geo. F. Hayden	Second Vice-President
Frank Y. Low	Third Vice-President
Edd. V. Starkweather	Secretary
G. H. Patten	Treasurer
W. D. Matthews	Critic
H. A. MacClyment	Marshal

Members

F. S. Wilhoit
H. A. MacClyment — E. H. Olson
W. H. Beattys, Jr. — Will D. Matthews
C. S. Longnecker — B. D. Rimanoczy
W. E. Weinsheimer — E. S. Roos — Ernest C. White
E. W. Lyman — A. J. Burr — Geo. Hayden — L. I. Porter
Morris E. Lee — H. W. Graff — L. H. Flanders
Geo. K. Hanai — F. W. Twichell
S. E. Bippus — E. G. Hindert
Geo. H. Patten — Frank Y. Low
H. J. Slaker

Board of Directors

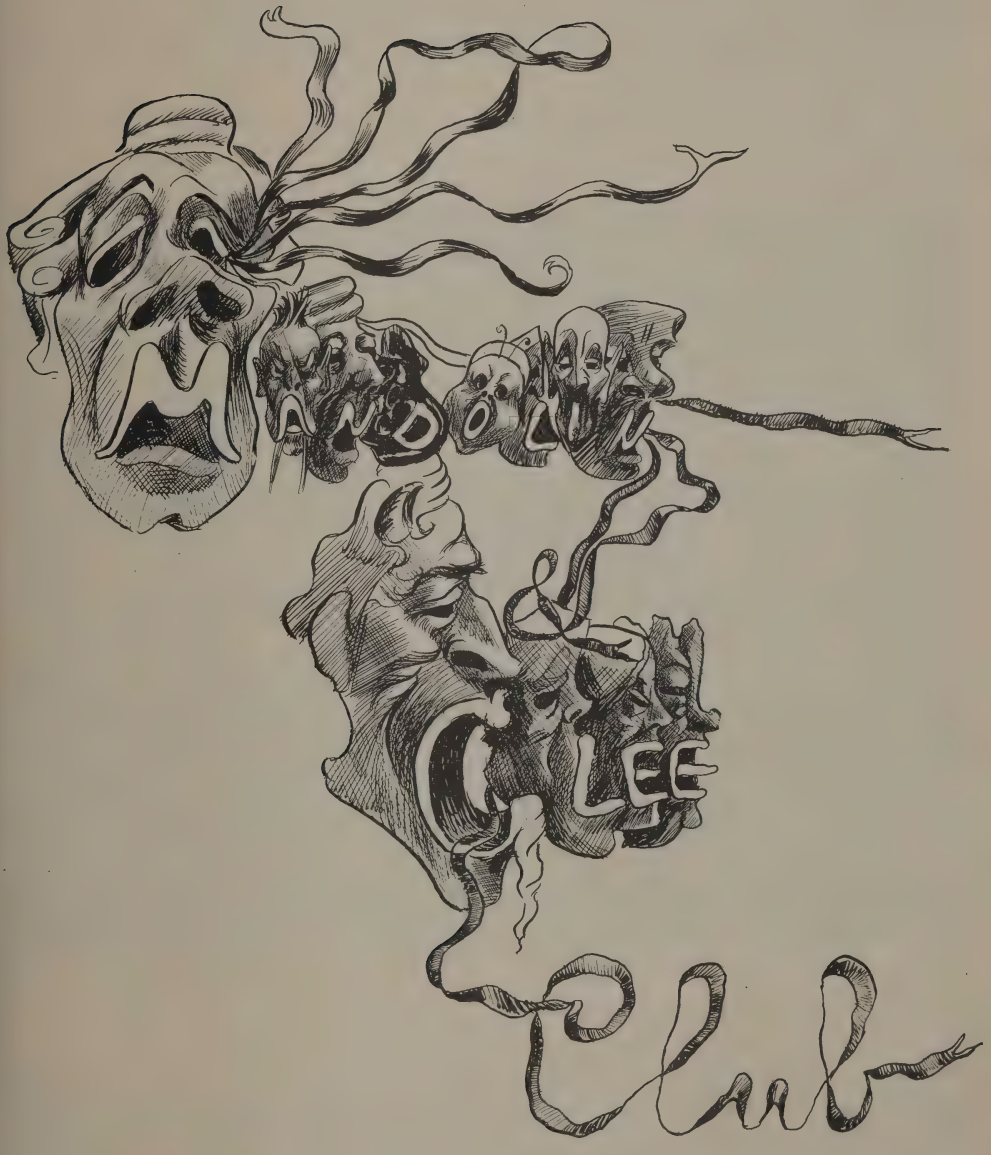
F. S. Wilhoit Frank Y. Low Geo. F. Hayden



TECHNICAL SOCIETY PAPER SUBJECTS

Oct. 17, '95.	"Economy in Central Stations."	B. H. GLOVER
	"Eugene Field and his Poetry."	C. T. MALCOLMSON
Nov. 7, '95.	"Gas Engines."	E. H. DILLON
	"Development of Iron and Steel Industry."	J. M. HUMISTON
	"Life and Writings of Sir Isaac Newton."	W. E. WINES
Nov. 26, '95.	"Compressed Air as a Motive Power."	L. H. FLANDERS
	"Telephone Lines and Switchboards."	H. T. MANLOVE
	"Hypnotism."	C. E. FREEMAN
Dec. 5, '95.	"Interlocking Switches and Signals."	F. S. WILHOIT
	"Corliss Engines."	GEO. THOMPSON
Jan. 16, '96.	"Non-Conductors of Heat."	C. B. GEORGE
	"Hall Signal System."	RALPH H. RICE
	"Memory."	C. S. BUELL
Feb. 6, 96.	"Insulation Testing."	W. A. DERBY
	"Locomotives."	L. D. WOOD
	"Development of Photography."	F. B. HALL
Feb. 20, '96.	"Link Belt Conveyors and Elevators."	E. L. NEILSON
	"The Express Board in Telephone Service."	W. F. SIMS
Mch. 5, '96.	"Elevators."	R. V. PERRY
	"Methods of Illustrating."	F. D. SHEIBLEY
	"John Ericson."	P. F. APFEL
Mar. 20, '96.	"The Steam Engine Indicator."	W. H. BARTHOLD
	"Track Construction."	J. R. SLOAN
	"Technical Education."	J. J. WHEELER
Apr. 21, '96.	(Public Meeting.)	
	"Artificial Illumination."	PROF. W. M. STINE
	"Water Wheels."	W. E. WINES
May 5, '96.	"Rope Transmission of Power."	F. C. JOHNSON
	"Bridges and Viaducts."	J. M. HUMISTON
	"Art and American Illustrators."	C. T. MALCOLMSON
May 19, '96.	"Concrete Construction."	L. H. FLANDERS
	"Correlation of Mathematics."	MISS GOULD (Chicago University)
	"Mechanical Construction."	C. E. FREEMAN

June 2, '96.	"Elementary Principles of Navigation."	B. H. GLOVER
	"Fire Extinguishing Apparatus."	H. T. MANLOVE
Oct. 6, '96.	"Overhead Construction of Electric Lines."	J. R. SLOAN
	"Measurement of Durability of Lubricants."	R. V. PERRY
Oct. 13, '96.	(Public Meeting) 5 p. m.	
	"Astronomical Photography."	F. S. WILHOIT
Oct. 20, '96.	"Laboratory Tests of Bricks."	H. A. MACCLYMENT
	"Electric Conduit Railways."	E. G. HINDERT
Nov. 5, '96.	"Roger Bacon."	F. D. SHEIBLEY
	"Heavy Ordnance."	F. B. HALL
	"Electricity as Used in the Navy."	W. F. SIMS
Nov. 17, 96.	"Explosives; Their Characteristics, Development and Uses."	MR. SAMUEL RODMAN (Expert in High Explosives)
	"Petroleum; Its Formation and Composition."	RALPH H. RICE
Dec. 1, 96.	"Lightning Arresters."	W. R. GARTON (Inventor.)
Jan. 5, '97.	"Alloys of Aluminum."	H. T. MANLOVE
Jan. 19, '97.	"The Mechanism of the Eye."	DR. H. H. BROWN
Jan. 28, '97.	"Chimney Draughts."	J. J. WHEELER
	"Psychology of a Joke."	C. E. FREEMAN
Feb. —, '97.	Open Meeting. Afternoon.	
	"The Development of the Locomotive."	PROF. R. A. SMART (Of Perdue University.)
Feb. 25, 97.	"Arc Lighting."	W. A. DERBY
	"Refrigerator Car Construction."	E. S. ROOS
Mar. 12, '97.	"Michael Farraday."	C. T. MALCOLMSON
	"Calculating Machines."	P. R. CHAPMAN
Apr. 15, '97.	"Manufacture of Incandescent Lamps."	C. E. FREEMAN
	"Arc Lamp Tests."	RALPH H. RICE
May 6, '97.	"Surveying."	W. H. BEATTYS
	"Car Brakes."	E. G. HINDERT
May 20, '97	"The Return Circuit of the Single Trolley System."	G. K. HANAI
	"Compressed Air Systems."	N. M. LONEY
Oct. 6, '97.	"Country Systems of Electric Lighting."	H. A. MACCLYMENT
Oct. 21, '97,	"The Welsbach Light."	F. Y. LOW
	"Storage Traction in Chicago."	E. H. OLSON
Nov. 18, '97.	"The Westinghouse High Speed Air Brake."	W. E. WEINSHEIMER
Dec. 2, '97.	"Mechanical Stokers."	E. V. STARKWEATHER
	"Mechanical Draught."	E. C. WHITE


MANDOLIN
&
LEE
Club

GLEE AND MANDOLIN CLUB

ORGANIZATION

96 97

PORTER BRUSH TARBELL ALBAN BIPPUS PIERCE

BEATTYS SHAW O'LEARY WHITE VAUGHAN COLBURN

MATTHEWS STARKWEATHER BROWNELL BROOKS

FLORSHEIM GOODHUE

E.C. WHITE
LEADER OF GLEE CLUB.

J.W. O'LEARY
MGR.

A.S. SHAW
LEADER OF MANDOLIN CLUB.



Glee and Mandolin Clubs

History



IS affirmed by a member of our faculty,

"Clubs may come and clubs may go,
But the Glee and Mandolin Clubs go on forever."

If we may limit the "forever" to the four years since the Institute opened its doors, this has already been proven. Through vicissitudes of all descriptions the Clubs have succeeded far beyond the expectations of the organizers.

Only two months after we had commenced to "grind," during the first sessions of the Institute, the necessity of giving vocal vent to our feelings was recognized. Mr. Stewart, '97, called for volunteers for a Glee Club. About forty coming wonders responded willingly, ready to do or die for the cause. Mr. Malmene, of the Department of Music, undertook the task of training this assemblage. After several rehearsals it was decided to abandon the idea of so large a club and effect a reorganization with Mr. Herman L. Walker as director. Mr. R. N. Stewart was elected President, Mr. H. T. Manlove, Secretary and Treasurer, and Mr. T. P. Haughey, Leader and Manager.

Coincident with the reorganization of the Glee Club, was the organization of the Banjo and Serenade Clubs, with Mr. S. K. Martin as leader.

So much accomplished, those who were to uphold the musical side of the College were selected from the applicants and preparation for our debut made. The first concert! Could any one, with even the semblance of sentiment, ever forget it? After months of patient rehearsing we were, at last, to gain our reward. An audience which filled every nook of the Assembly Hall, aided us to forget our nervousness, by their indulgence and applause. Certainly our initial performance was a success in every respect, and in spite of the lateness of the season, the latter part of May, the Club secured an engagement at Christ Church. We then felt that such an overloaded treasury as existed should be relieved, and the result was a lake trip. The adventures of that trip, coming, as it did, at the close of our year's studies, blotted from our minds all the unpleasant memories of the June "exams." For an account of the excitement, we always refer to W-1-y.



The election for the season '94-'95 brought no change in the leadership of the Glee Club. In this year, however, the Banjo Club was disbanded owing to lack of material, and a Mandolin Club organized, Mr. B. N. Kavanaugh acting as leader. Mr. J. W. O'Leary became manager of the Clubs. The annual concert was held in December, '94, followed by a trip through Elgin and Aurora. Early in '95, Mr. C. E. Freeman assumed charge of the Glee Club, and Mr. J. W. O'Leary succeeded Mr. Kavanaugh as leader of the Mandolin Club. Many successful concerts were given in various parts of the city.



The season of '95-96, brought with it a reorganization of the Banjo Club, with Mr. C. E. Freeman as leader. The Glee and Mandolin Clubs retained the same officers and management.

Variety in program was offered through the Serenade Club and Banjo and Vocal Quartettes. Our former good success continued, and a well filled treasury and gain in reputation paved the way for even greater success. In the following year, Mr. E. C. White became leader of the Glee Club. Mr. Arthur S. Shaw trained the Mandolin Club, there being no change in management. Certainly, no member had reason to regret his membership in the Club that year, and the fifth anniversary of our wedding to the art of college music has just passed without a setback to our success.

The officers for the year '97-98 are as follows: Mr. E. C. White, leader of the Glee Club; Mr. G. A. Colburn, leader of the Mandolin Club, and Mr. W. D. Matthews, Manager. The Clubs have given their Fifth Annual Concert at home, and everything seems to indicate a prosperous season.

Of original composition by the members of the Club, there has been considerable. The first effort for an "Alma Mater" was made by Mr. Stewart, who wrote words to music of "Where Would I Be." For three years, Mr. W. T. Apmadoc's composition, words and music of "Armour," were sung. Mr. Shaw and Mr. Colburn did much in this direction for the Mandolin Club, Mr. Shaw's compositions being "Armour Tech. Two-step," "Serenade," and "Ninety-Seven Patrol." Mr. Colburn's, "La Sodales Waltzes" and the "Tin Soldier March," the latter rendered by both clubs. Mr. Freeman also added his name to those who originate good music, through his composition for the Banjo.

Primarily, we have had to discuss only the history of the clubs. The good times have their place in the memory of each and every member and ex-member, while the hardships we try to forget that we may always sing, truthfully:

"In merry mood are we, Oh, Armour!
Our songs to thee we sing,
In every heart there's joy, Oh, Armour!
To thee we homage bring.

"Within thy walls we hear the calls
Of Science and of Art.
Then here's to thee a rousing glee
That shows the grateful heart—
Rah-rah! Rah-rah! Rah-rah!"

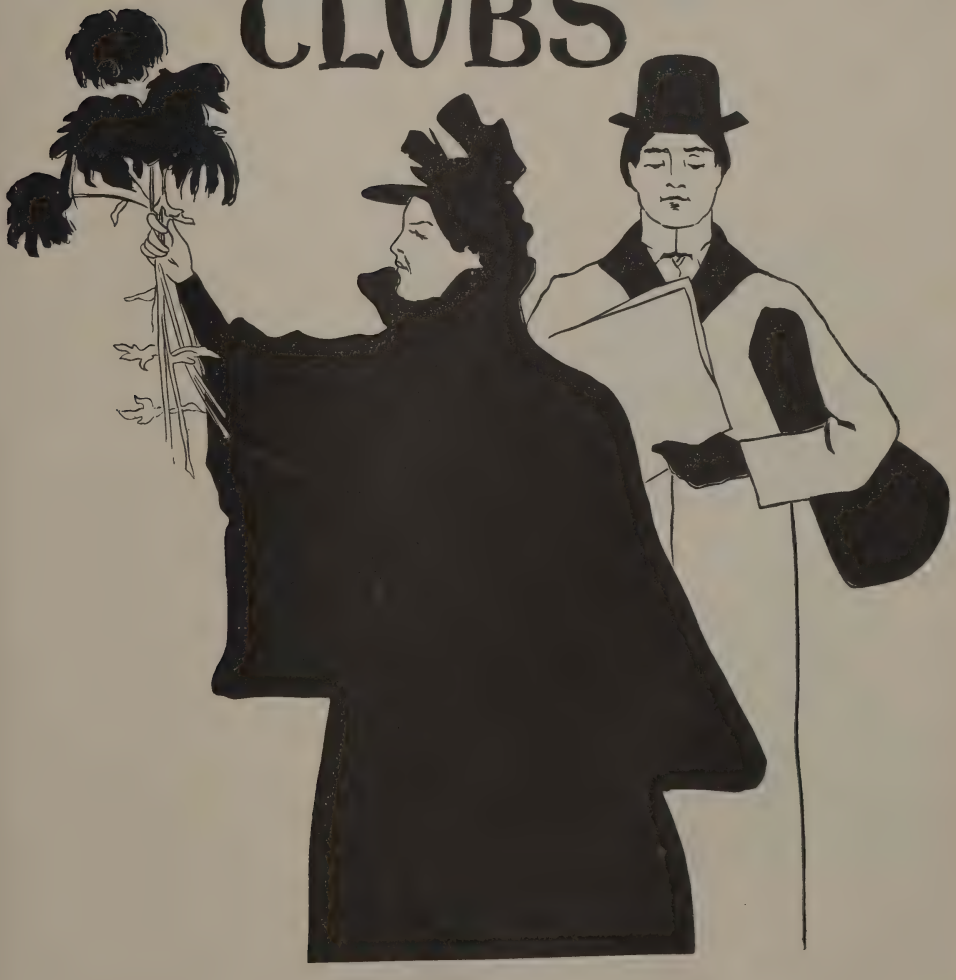


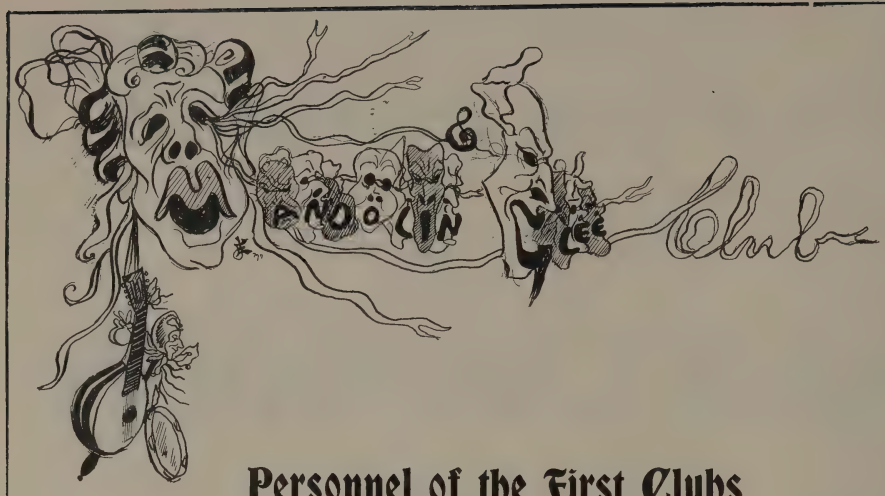
ELGIN*

* Reproduced from a sketch made at the time by one of the Club members—name withheld.

ARMOUR INSTITUTE OF TECHNOLOGY

GLEE & MANDOLIN CLUBS





Personnel of the First Clubs

Glee Club

1st TENORS
T. P. Haughey
R. N. Stewart
F. S. Shewell
J. W. O'Leary

1st BASSOS
E. V. Starkweather
W. W. Lanterman
R. L. Hare
H. T. Manlove
S. K. Martin, Jr.

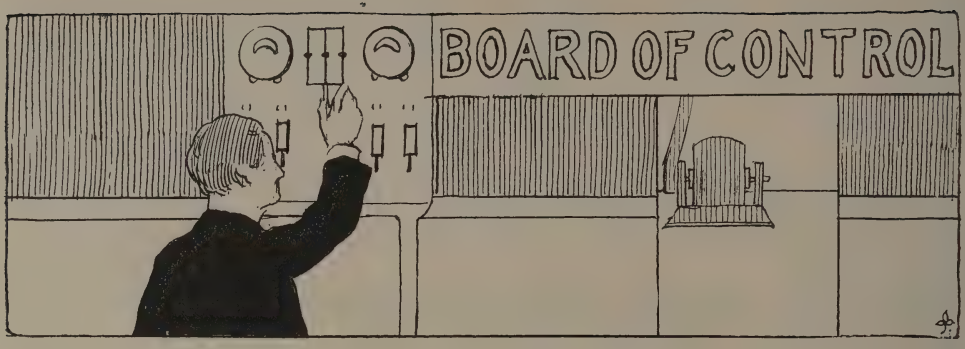
2nd TENORS
W. H. Feindt, Jr.
P. R. Chapman
H. R. Kingman
J. A. Wiley

2nd BASSOS
C. L. Tarbell
W. S. Ferris
J. D. Kilbourne
N. T. Betts
A. K. Brunelle

Banjo Club

E. L. Neilson
C. S. Buell
W. W. Lanterman
S. K. Martin, Jr.
C. E. Freeman
R. C. Burroughs
R. J. Kelly
H. K. Martin
C. L. De Berard


ATHLETICS
ARMOUR INSTITUTE
V.S.
ARMOUR INSTITUTE
V.S.
R.D.J.
PETER
F. S. FAIRMAN



Athletic Board

1897

G. A. Feindt, '00, President
Prof. V. C. Alderson, Treasurer
C. S. Longnecker, '00, V.- Pres.
G. H. Patten, '98, Secretary
S. H. Bond, '01
C. W. Brooks, Academy
Wm. Warren, '99
W. E. Miller, '01
S. E. Bippus, '99
C. S. Morse, '99
C. H. Roesch, '98
H. B. Thomas,
F. S. Fairman, '98
A. H. Goodhue, '99
R. P. Harlan, A.
G. F. Hayden, '00
R. J. Raley, '01

1896

W. F. Sims, '97, President
G. A. Feindt, '00, V.- Pres.
C. H. Roesch, '98
Prof. V. C. Alderson, Treas.
B. B. Greer, Academy
J. J. Wheeler, '97, Sec'y
E. G. Hindert, '98
J. R. Brownell, '00
B. Shubart, '99
W. R. Weidman, '99
M. S. Good, '98
C. S. Longnecker, '00
J. A. Bloomingston
F. S. Fairman, '98
C. L. Tarbell, '99





The Athletic Association



COMPARING our regulation of Athletics by years, we see that in the first two years of the school Athletics ran wild without order or restraint. In order to transact any business it was necessary to call a meeting of the entire college, which greatly hampered any action. At the end of college year, 1895, at a meeting of the college, the entire control of Athletics was placed in the hands of a student board. This scheme proved such a success that the following year an Athletic Association was formed, to promote an interest in Athletics and form a source of permanent income for the expenses of the teams.

The members of the Association possess special privileges, and from their ranks is drawn all material for the teams.

In order to play on any team or represent the Institute in any contest, it is necessary to be a member of the Athletic Association.

The Board of Control, however, did not pass out of existence with the formation of the Association, but continued to exercise its original functions, and has managed Athletics so well that the Athletic year has passed with absolutely no friction between the Board and the student body.

The Board, as now constituted, consists of fifteen members, viz.: The managers and captains of the teams, the Athletic instructor, the treasurer and one member from each class of the college, and one member from the Academy.

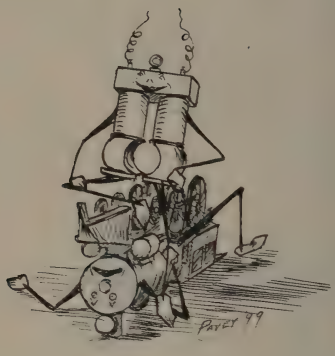
The managers are elected by the Board; the captains by their teams, and the class representatives by their respective classes.

The jurisdiction of the Board in student matters is recognized by the Faculty, and its action is absolute.

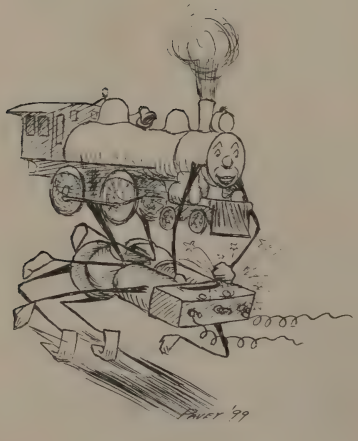
The many difficult matters arising during the year are settled in every case to the satisfaction of both sides, and in view of the results of its work, the Board is no longer an experiment, but a permanent success.

Class Games - 1897

Sophomore Electricals
vs.
Sophomore Mechanicals
Score, 22–21



Sophomore Electricals
vs.
Sophomore Mechanicals
Score, 22–23



Sophomores
vs.
Freshmen
Score, 48–14


RECORDS
H.S. Powers

Records

EVENT.	HOLDER.	YEAR MADE.	RECORD.
100-Yard Dash	F. S. FAIRMAN, '98	1897	$10\frac{1}{5}$ sec.
220-Yard Dash	W. I. A. BEALE, A.	'96	$24\frac{2}{5}$ "
440-Yard Dash	B. SHUBART, '99	'96	55 "
880 Yard Run	C. L. TARBELL, 99	'96	2:$10\frac{1}{5}$ "
1-Mile Run	H. M. ASHBY, '99	'96	4:$49\frac{1}{5}$ "
220-Yard Hurdles	R. T. ROGERS. A.	'95	29 "
½-Mile Walk	W. R. WEIDMAN, '99	'96	3:57 "
⅓-Mile Bicycle	W. P. MOSELY, A.	'96	$46\frac{1}{5}$ "
½-Mile Bicycle	A. P. HARD, '97	'95	1:09 "
1-Mile Bicycle	D. G. FISHER	'94	2:$33\frac{2}{5}$ "
5-Mile Bicycle	D. G. FISHER	'94	14:02 "
Running High Jump	B. SHUBART, '99	'96	5 ft. 3 in.
Running Broad Jump	H. E. MARTIN	'94	19 " 4 "
Standing Broad Jump	C. S. LONGNECKER, '00	'97	9 "10 "
16-Pound Shot	W. WARREN, '99	'97	31 " 2 "
16-Pound Hammer	W. WARREN, '99	'97	86 " 8 "
Pole Vault	C. S. LONGNECKER, '00	'96	9 " 4 "

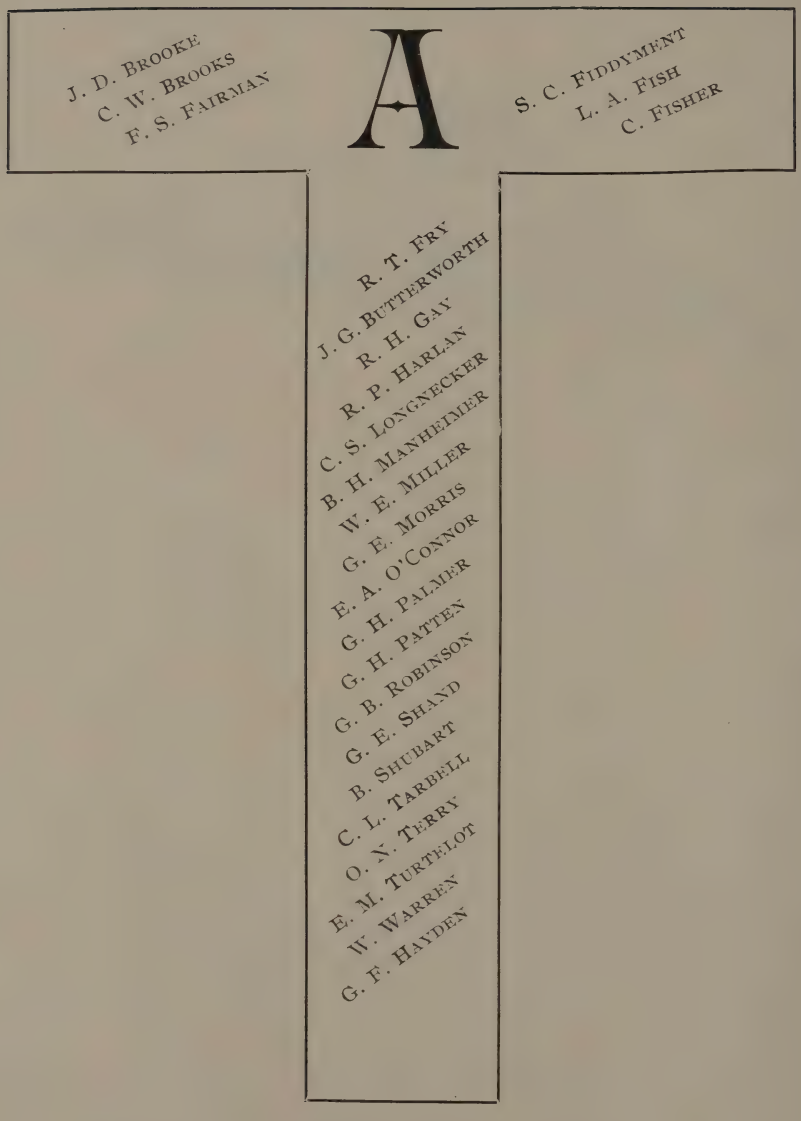
A—Scientific Academy.



Scenes From Early Field Days



100-Yard Dash	H. H. Baldwin	11 seconds
220-Yard Dash	H. H. Baldwin	25 1-5 seconds
440-Yard Run	C. G. Beadell	58 3-5 seconds
880-Yard Dash	P. Apfel	2:22 4-5
Mile Run	P. Apfel	5:06 2-5
120 Yards, Hurdle	W. K. Murdoch	21 1-5 seconds
220 Yards, Hurdle	W. K. Murdoch	30 1-5 seconds
Running High Jump	W. B. Pickrell	4 feet 11 inches
Running Broad Jump	H. E. Martin	19 feet 4 inches
Standing Broad Jump	H. E. Martin	9 feet 1 1-2 inches
16-Pound Shot Put	H. Paulman	33 feet 2 inches
16-Pound Hammer Throw		No record
Quarter Mile, Bicycle	D. G. Fisher	35 2-5 seconds
One Mile, Bicycle	D. G. Fisher	2:33 2-5
Five Miles, Bicycle	D. G. Fisher	14:02



Wearers of the "A" who will hereafter wear the "T."



Base Ball

1897

H. S. Good, Mgr.

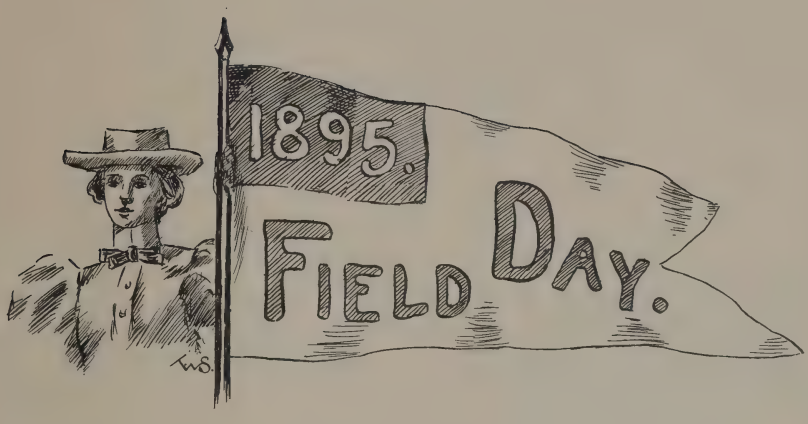
Ibsen, c.	Brooks, 3d b.	Morris, r. f.
Frasier, p.	Dunning, l. f.	Harlan, r. f.
Jamison, 1st b.	Miller, s. s.	Graham, sub.
Fairman, (Capt.), 2d b.		Gay, c. f.

Games

Apr. 21	A. I. T.	vs	H. P. H. S.	6-7
Apr. 24	A. I. T.	vs	A. H. S.	1-14
Apr. 27	A. I. T.	vs	H. P. H. S.	5 6
Apr. 28	A. I. T.	vs	N. D. H. S.	9 8
May 1	A. I. T.	vs	Y. M. C. A.	18 3
May 5	A. I. T.	vs	H. P. H. S.	14 9
May 8	A. I. T.	vs	A. P. A. A.	2-1
May 12	A. I. T.	vs	U. I. U.	5 18
May 20	A. I. T.	vs	E. H. S.	10-5
May 27	A. I. T.	vs	A. H. S.	12-4
May 28	A. I. T.	vs	M. P. A.	13-12
May 29	A. I. T.	vs	L. F. U.	19-20
May 31	A. I. T.	vs	Joliet	7 13




AIT
BASE BALL TEAM
MANZ



100-Yard Dash	W. P. Gray	10 4-5 seconds
220-Yard Dash	H. E. Martin	25 2-5 seconds
440-Yard Run	E. W. Eckersall	1:00 minute
880-Yard Run	P. Apfel	2:15 3-5
Mile Run	P. Apfel	5:04
Half Mile Walk	W. R. Weidman	4:11
220 Yards, Hurdle	R. T. Rogers	29 seconds
Running High Jump	W. P. Gray	4 feet 11 inches
Running Broad Jump	H. E. Martin	18 feet 6 inches
Standing Broad Jump	George Morris	9 feet 9 1-2 inches
16-Pound Shot Put	D. R. Kendall	28 feet 10 inches
16-Pound Hammer Throw	Wm. Warren	75 feet
Half Mile, Bicycle	A. P. Hard	1:09
One Mile, Bicycle	A. P. Hard	2:50
Five Miles, Bicycle	E. A. Wilson	14:12

Indoor Challenge Meet

College vs. Class of '99

March 12, 1897

20-Yard Dash

Time, 2 2-5 sec.

Winner — Hayden, '00
Second — Longnecker, '00
Third — Shubart, '99

Running High Jump

Height, 5 ft. 1 in.

Winner — { Shubart, '99 / Terry, '99
Third — { Longnecker, '00 / Perry, '97

Shot Put

Distance, 28 ft. 11 in.

Winner — Terry, '99
Second — Warren, '99
Third — Feindt, '00

Pole Vault

Height, 8 ft.

Winner — Longnecker, '00
Second — Perry, '97
Third — Shubart, '99

Wrestling

Winner — Fiddyment, '99
Second — Feindt, '00
Third — Terry, '99

Boxing

Tarbell, '99 and Weidman, '99
vs.
Church, '97 and Muchlman, '00
Points Divided.

Quarter-mile Walk

Winner — Weidman, '99
Second — Higginson, '00
Third — Harvey, '00

Standing Broad Jump

Distance, 9 ft. 10 in.

Winner — Longnecker, '00
Second — Perry, '97
Third — Pavey, '99

440-Yard Dash

Winner — Good, '98
Second — Brownell, '00
Third — Ransom, '99

Total Number of Points — { College, 43½ / Class of '99, 37½



Foot Ball Team, 1897

G. H. Patten — Manager

R. P. Harlan — Assistant Manager

W. E. Miller — Captain

Line-up

Shand....R. E.

Tarbell ...R. T.

Terry....R. G.

Fry....C.

Robinson....L. G.

O'Connor....L. T.

Palmer....L. E.

Brooks....Q. B.

Brooke ...R. H. B.

Patten....L. H. B.

Miller....F. B.

Line Substitutes

Loeb....Fish....Fiddyment....Schroeder....Hindert

Back Substitutes

Butterworth....Harlan....Tourtelot

Foot Ball Games, 1897

Sept. 25 — Armour vs. Naval Reserve....4—0

Oct. 2 — Armour vs. Beloit....0—31

Oct. 6 — Armour vs. P. and S.....0—31

Oct. 12 — Armour vs. Chicago....0—28

Oct. 16 — Armour vs. Morgan Park....6—0

Oct. 23 — Armour vs. Elgin....10—0

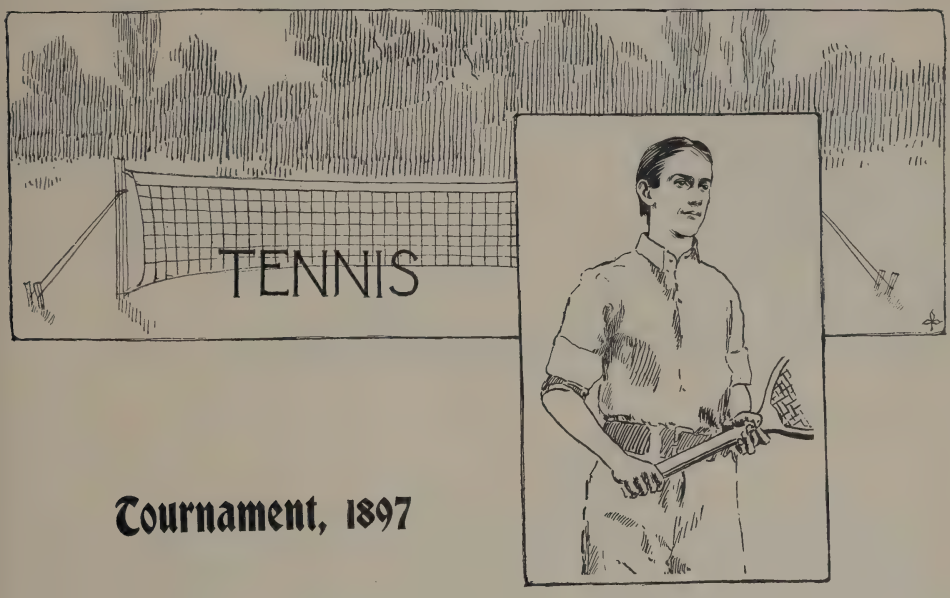
Oct. 29 — Armour vs. Lake Forest....6—18

Nov. 3 — Armour vs. Lewis Institute....30—4

Nov. 17 — Armour vs. Hahnemann....18—0

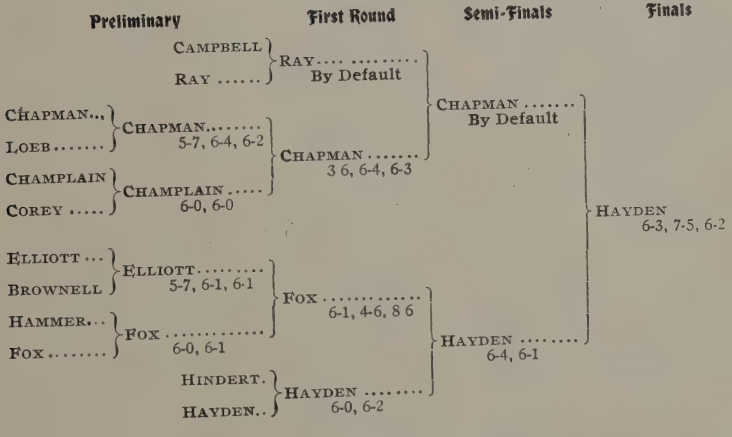
Nov. 25 — Armour vs. Racine....0—24



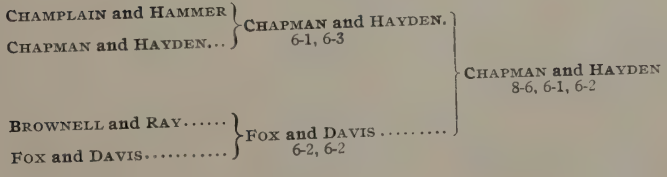


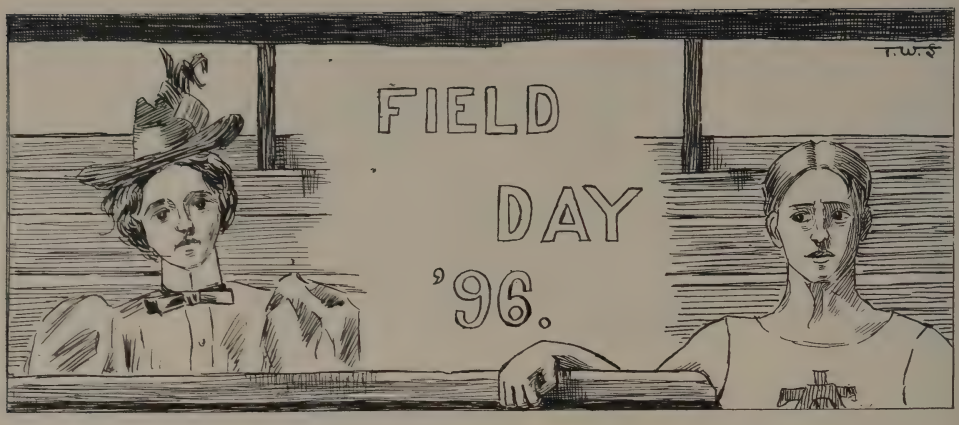
Tournament, 1897

Singles



Doubles





100-Yard Dash	F. S. Fairman	10 3-5 seconds
Second	W. I. Beale	
220-Yard Dash	W. I. Beale	24 2-5 seconds
Second	C. W. Dunning	
440-Yard Dash	Benedict Shubart	55 seconds
Second	L. H. Flanders	
880-Yard Run	C. L. Tarbell	2:10 1-5
Second	P. Apfel	
One Mile Run	H. M. Ashby	4:49 1-5
Second	C. S. Morse	
220 Yards, Hurdle	Benedict Shubart	29 2-5 seconds
Second	W. I. Beale	
One-Half Mile Walk	W. R. Weidman	3:57
Second	E. M. Lubeck	
Running High Jump	Benedict Shubart	5 feet 3 inches
Second	Harvey Fox	
Running Broad Jump	C. S. Longnecker	19 feet 1 inch
Second	Harvey Fox	
Shot Put	W. Warren	28 feet 8 1-2 inches
Second	O. W. Neeves	
16-Pound Hammer Throw	W. Warren	82 feet 5 inches
Second	E. G. Hindert	
Pole Vault	Harvey Fox	9 feet
Second	C. S. Longnecker	
One-Third Mile, Bicycle	W. P. Mosely	46 1-5 seconds
Second	C. Fisher	
One-Half Mile, Bicycle	C. Fisher	1:16 4-5
Second	W. P. Mosely	
One Mile, Bicycle	W. P. Mosely	2:45 4-5
Second	C. Fisher	
Five Miles, Bicycle	W. P. Mosely	14:15 4-5
Second	P. Manheimer	
Standing Broad Jump	C. S. Longnecker	9 feet 6 1-2 inches
Second	W. Warren	


W. J. Enright

Track Team — 1897

C. S. Longnecker, Captain
J. R. Brownell, Manager

Fairman—
Knox—Sprints
Pavey—

Bond—220 and 440-Yard Runs

Shubart—440-Yard Run, Hurdles and High Jump

Wheeler—
Tarbell— 440 and 880-Yard Runs

Weidman—Walk

Longnecker—Broad Jump and Pole Vault

Vaughan—High Jump and Pole Vault

Terry—High Jump and Shot Put

Warren—Shot and Hammer

Brooke—
Manheimer—Bicycle
Fisher—


TRACK TEAM



FIELD DAY, 1897.

100-Yard Dash	F. S. Fairman	10 1-5 seconds
Second	E. C. Knox	
220-Yard Dash	F. S. Fairman	25 2-5 seconds
Second	C. W. Dunning	
440-Yard Dash	J. J. Wheeler	57 4-5 seconds
Second	C. J. Young	
880-Yard Run	J. J. Wheeler	2:32 1-5
Second	C. S. Longnecker	
One Mile Run	B. B. Greer	6:02 4 5
Second	W. R. Weidman	
220 Yards, Hurdle	Benedict Shubart	31 2-5 seconds
Second	G. A. Hammer	
One-Half Mile Walk	W. R. Weidman	4:18 2-5
Second	S. E. Bippus	
Running High Jump	O. N. Terry	5 feet 1 3-4 inches
Second	C. G. Vaughan	
Running Broad Jump	C. S. Longnecker	18 feet 11 3-4 inches
Second	Benedict Shubart	
Shot Put	W. Warren	31 feet 2 inches
Second	O. N. Terry	
16-Pound Hammer Throw	W. Warren	86 feet 5 inches
Second	E. G. Hindert	
Pole Vault	C. S. Longnecker	8 feet 11 inches
Second	C. G. Vaughan	
One-Third Mile, Bicycle	J. D. Brooke	48 1-5 seconds
Second	C. Fisher	
One-Half Mile, Bicycle	C. Fisher	1:20 4-5
Second	B. Manheimer	
One Mile, Bicycle	B. Manheimer	3:01 1-5
Second	J. D. Brooke	
Five Miles, Bicycle	B. Manheimer	14:27
Second	C. Fisher	

The Family Sweater

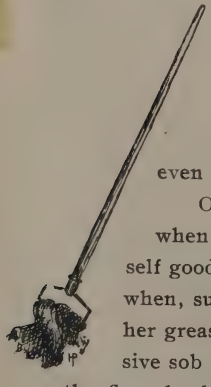


IT was a great day in the family when the eldest of the young Cramptons appeared in his new sweater —a sweater especially designed for foot ball work at Armour. It was a particularly gorgeous sweater, black with a yellow stripe right across the middle on which was emblazoned the letter "A," signifying that he was a member of the proud house of Armour. Young C. was a splendid looking fellow and the sweater was the noblest of his kind — the combination was stunning. Crampton wore him most of the time, although, as I said before, he was a foot ball sweater.



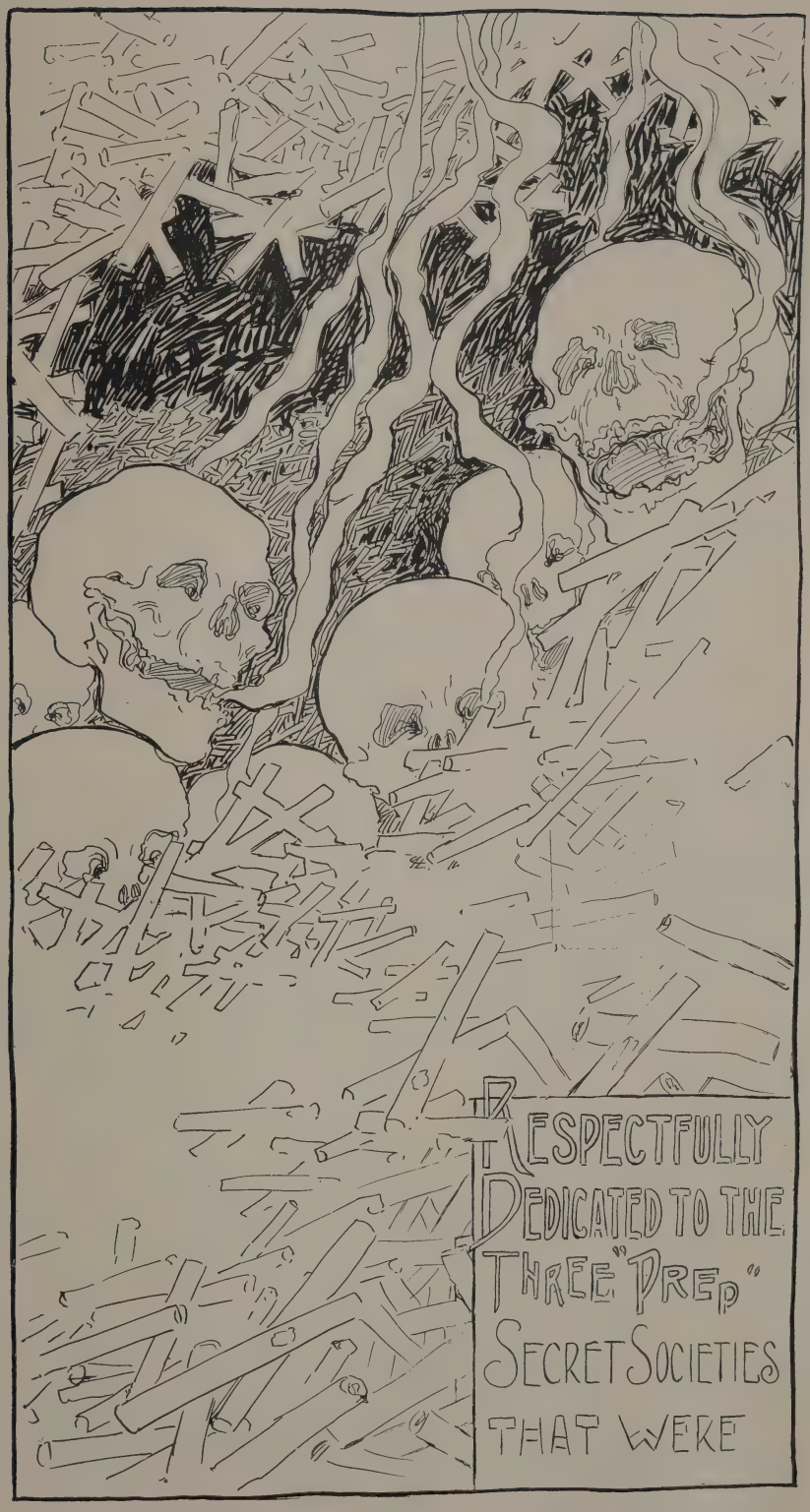
There was a young woman for whom the sweater took a violent liking. It sent a thrill through his very ribs when she rested her head on his arm, and he went into ecstacies when her lips touched his shoulder. He felt that he was making rapid strides toward universal popularity, especially as he never disgraced the polite society into which he was admitted. He was indeed doing finely, but like many another young society favorite, he went the pace that kills. He appeared in public morning, noon and evening, so it was not surprising that he soon should have a shrunken, faded air. Crampton soon noticed the change in his friend and was not slow in casting him aside. It was a terrible day! Pen cannot describe the feelings of the outraged sweater — his heart was broken and he did not consider matters improved one particle when a younger Crampton happened along and seized upon him. He felt very ignominious indeed, to be adorning a young high school boy who played a very indifferent game and who covered up the "A" because *he* was not an Armourite. Not the least of his sufferings was the thought that never more would he be permitted to listen to the gentle voice of the one woman. He was no longer sent to the laundry,





but was "washed out" at home and was allowed to dry behind the kitchen stove. To say that he was unhappy would be putting it mildly; nor did he receive any consolation from the occasional glimpses of himself, which he was allowed to get when his master condescended to look in the glass. Each day he grew more wrinkled, shrunken and faded, until there came a time when even his second master scorned him and he was left to languish in the closet.

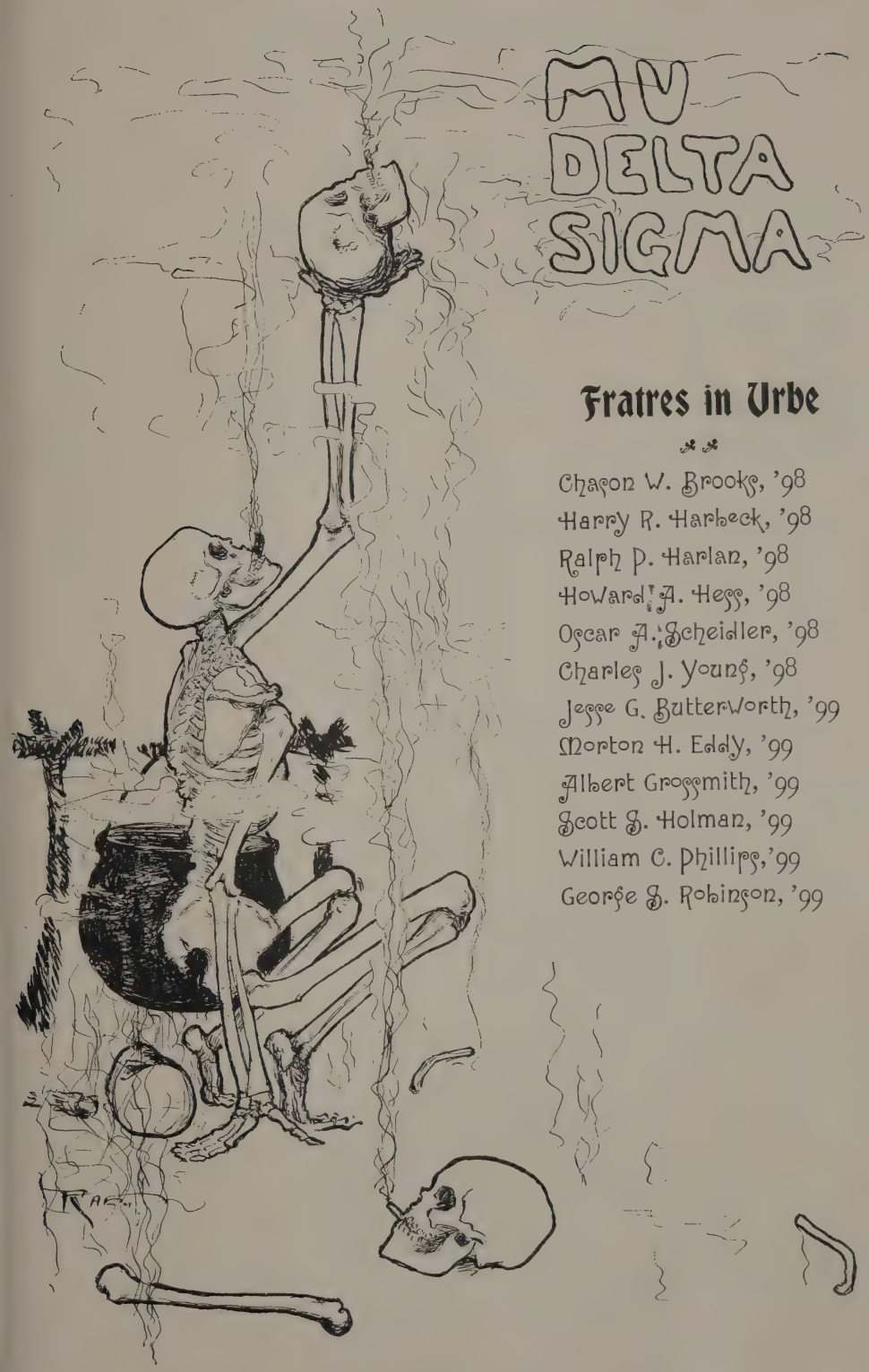
One sad night Mrs. C. was looking for something with which to bind a sore throat when she spied the old sweater, and before he could take a long breath or bid himself good-bye, he was minus an arm. He now felt that his humiliation was complete, when, suddenly the cook, arriving on the scene, grabbed him up and threw him over her greasy shoulders while she went to do an errand; he gave one prolonged, convulsive sob and passed in his checks. A few days later, after having been used to mop the floor he bore no semblance to the proud being who had entered on such a noble career — he was only a rag.


RESPECTFULLY
DEDICATED TO THE
THREE "PREP"
SECRET SOCIETIES
THAT WERE

Mu Delta Sigma

Chapter Roll

Supreme Chapter—	Grand Rapids, Michigan
Alpha—Established in 1884 . .	Grand Rapids High School
Beta—Established in 1894 . .	Kalamazoo High School
Gamma—Established in 1895 . .	Milwaukee High School
Delta—Established in 1895 . .	Albany, New York, High School
—Established in 1897 . .	Troy, New York, Academy
—Established in 1897 . .	Milwaukee West Side High School
—Established in 1898 . .	Milwaukee Academy
—Established in 1898 . .	Armour Scientific Academy



Nu Delta Sigma

Fratres in Urbe

Chason W. Brooks, '98
Harry R. Harbeck, '98
Ralph P. Harlan, '98
Howard A. Hess, '98
Oscar A. Scheidler, '98
Charles J. Young, '98
Jesse G. Butterworth, '99
Morton H. Eddy, '99
Albert Grossmith, '99
Scott S. Holman, '99
William C. Phillips, '99
George S. Robinson, '99

Mu Delta Sigma

THIS fraternity, although but a recent acquisition to the life of Armour Scientific Academy, has already obtained a strong foothold. It is one of the most prominent and progressive of all academical and high school Greek-letter societies, and, as will be seen by reference to the chapter roll, has been surprisingly reinforced during the past year. Four large and flourishing chapters are organized, but have not, as yet, been assigned a permanent position and a letter.

Its influence is all for the best, and while it could not be called exclusive, yet the conditions surrounding admissions are such that only students whose averages are high and reputations without question may obtain the coveted right to wear the handsome green and gold pin which is the insignia of the Society.

It numbers among its ranks, as honorary member, John Phillip Sousa, the famous band leader, and the alumni chapters embrace names of men who are fast becoming famous, both in scientific and literary circles.

Unlike a great many secret societies and Greek-letter fraternities, the Mu Delta Sigma has the unqualified approval of the faculty. In other cities where the chapters have had a longer and more intimate association with the school life, they are looked upon as being vast helps toward maintaining the highest standards in class work and athletics.

Owing to the conditions which obtain in any academy located in a metropolitan district, there is usually an almost entire absence of fraternal spirit among the students.

The new Society upholds friendship as a cardinal virtue, and for this reason, if for no other, will be warmly welcomed to the ranks of our associations.

The Department of Domestic Arts

THIS is one of the most popular departments of the Institute; the reason probably being that when a young lady has mastered the subjects taught she is almost within the goal of matrimony. The range of subjects within its jurisdiction extends throughout the dominion of home economics.

Cooking, both as an art and as a science, household economics, hygiene and home nursing, sewing, dressmaking and millinery are its distinguishing features. Lectures, practically illustrated, are of the essence of the imparted instruction. Its uses are not confined to the professional chef, the mistress of the mansion, or the fashionable modiste, but it embraces subjects found in every phase of domestic life. Hither comes the slave of convention, accustomed to do only as "mother used to do"—chafing under the difficulties of reconciling ancient methods to modern appliances; hither comes the housewife, anxious to lighten her labors and make home more attractive; the maid of sixteen comes, ready for induction into the mysteries of the craft; comes, too, her elder sister, who finds it difficult to rivet her attention upon the instruction so long as the glare of her own engagement ring divides it—and, truth to tell, to this complexion do they come at last, most of them. Hither come many to unlearn the old, and learn the new,—to learn that dispensation means "Sweetness and Light." The propaganda of the department necessarily includes hygiene in the home and for its inmates, intelligence added to tenderness. Use and ornament in bodily apparel receive their proper consideration.

From the simplest sewing to the most complex dream of a bonnet may be a far cry, but the progress from one to the other is here daily traced and exemplified.

Domestic economy is here no mere euphemism; the department practices while and as it preaches. The whole trend of the department's teaching is toward making one value the actual and the ideal in the home life and its associated details. It strives to reduce a domestic Utopia to actual possession.

Not the least of its attractions, particularly to the student of sociology, is its democratic and cosmopolitan character; it makes no distinctions of race, color, or previous condition of servitude. Its membership is not socially stratified. The Boulevards, the Avenues, and the Country send their representatives. In fact, it is only cowardice that keeps the so-called sterner sex away. Occasionally a man has had the hardihood to venture on a course in cooking lessons; but the presence of a score of white caps and aprons, duly surmounted by bright eyes and damask cheeks, leaves him in a state of open-mouthed collapse, to the utter destruction of his culinary possibilities. The men may come—if they dare. There is a tradition in the Department of Cooking that once upon a time three men took the course. One finished; the other two were finished.

Finally, must it not follow as the day follows the night, that with each department spaciously housed on the entire fourth floor of the Institute, with every modern device and appliance at hand, under the supervision and direction of skilled instructors, that the best in all the students will be evoked? Can it be otherwise than that it all makes for the higher and better life to which some of us unconsciously, and others consciously, with an almost poetic flame, constantly aspire?

The Department of Shorthand and Typewriting

The Department of Shorthand and Typewriting came into existence with the rest of the Institute. Both owe their life to the same conditions and the generosity of the same man. Each school realizes this truth, and that is the reason they have marched along, hand in hand, with brotherly love.

The Department belongs to what is known as the "Associated Departments," so called chiefly because they do not associate.

History naturally divides itself into epochs, and these epochs are in their turn made by important events. The events are of two varieties: Those which affect contemporaneous history and those which affect only the history with which they are connected. The events of the first class are, naturally, of greater importance to the Institution, and, therefore, should be named first.

The first incident of importance to affect the Institute materially (for better or for worse), was the birth of this Department.

The next event to affect the Institute was the downfall of the first autocratic ruler of the Department, and the establishment of a milder form of government under its present Director—or Dictator.

The first named incident is of such obvious importance it is unnecessary to state fully its significance.

The second is important because it commemorates the era of prosperity to the Department, and, therefore, to a marked extent, to the rest of the School. The day the new administration went into effect, the Department began to grow and expand, and has continued to do so ever since.

These are the only two issues of vital importance to the rest of the School.

There have, however, been a great many internal struggles which have had a decided influence on the Department itself. The first of these was disastrous. There was a perceptible falling off in the attendance during the first nine months of the School under the first form of government, but the decrease proved to be of only temporary duration. Notwithstanding the sad fact that the establishment was going into decline, the Directors perceiving its hardy qualities, decided that it was capable of going forth from under her protecting wing to conquer, and, consequently, set it out to grapple with the world alone. in order to make room for another associated department. The Shorthand and Typewriting School confirmed her predictions by taking up its abode in an adjoining flat and flourishing beyond all expectations.

Time went on smoothly and peaceably. There was no strife, no bloodshed; nothing of an exciting nature to record. The next occurrence of importance—the next epoch maker—came in the Spring of 1897, when it was found necessary to make over the quarters, in order to make room for the larger number of students desiring admittance. The apartments were made larger and improved. This is the last event of importance to occur to the Department.

Mary Isabel Branch

Rupert P. LaRelle



BUSINESS DEPARTMENT '96



BUSINESS DEPARTMENT '97

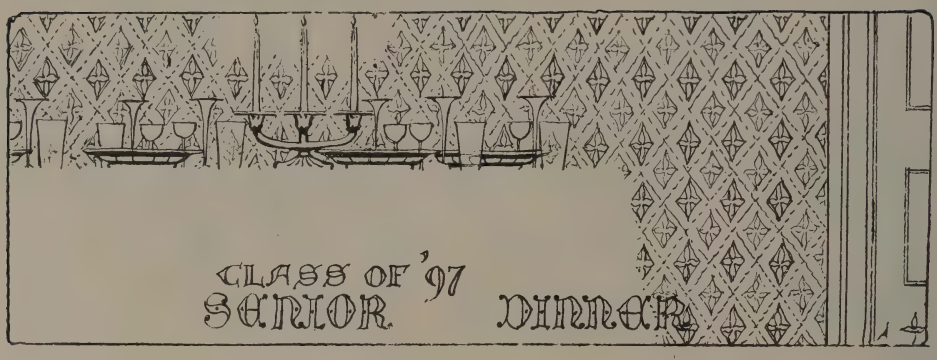




ver memorable will be the happenings of Commencement Week, June thirteenth to seventeenth, eighteen hundred and ninety-seven. By the measure of college life as developed in schools of much longer existence, we may well be proud of the effort to institute such time honored customs at "Armour" as are recognized in the best of Institutions East and West. Certain events are now "classic" with us.

The favored twenty and three who left these halls so recently were ushered into the world of reality with dignity befitting the chosen sons and prophets of a noble Head. We are now rushing rapidly away from the days of our First Annual Commencement Week, and let it be our purpose to record in detail the incidents of that happy season.

In the Beginning was the



St. Hubert's
June 10th

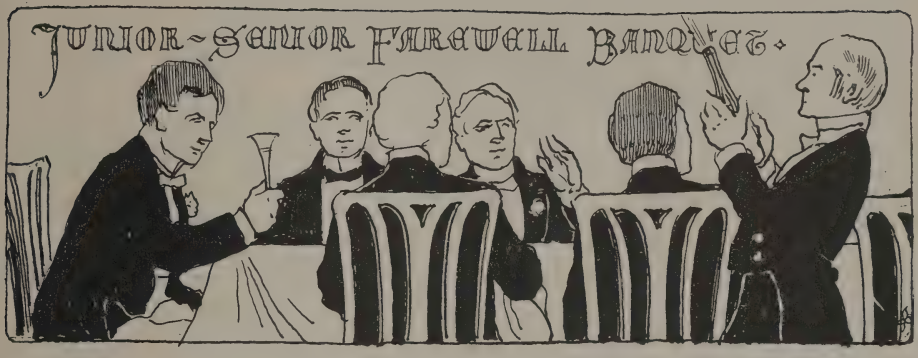
Toast Master
Mr. C. T. Malcolmson

Toast Program

September 14th, 1893	Mr. B. H. Glover
Athletics	Mr. B. G. Jameson
Women	Mr. E. D. O'Brien
Past Commanders	Mr. W. F. Sims
Evolution	Mr. W. A. Derby
Drops of Sweat	Mr. J. J. Wheeler
A. I. T. A. A.	Mr. N. McLoney
Chestnuts	Mr. C. E. Freeman
American Citizenship	Mr. I. Prenner
Alma Mater	Mr. G. Mahoney

At the conclusion of this feast there was ushered into life that index of our fitness, in the scientific world, the A. I. T. A. A.—or, being translated, the Armour Institute of Technology Alumni Association. For the first year of its existence the officers are:

President	Mr. E. Richardson
Vice-President	Mr. J. R. Sloan
Recording Secretary	Mr. B. F. Hall
Corresponding Secretary	Mr. C. T. Malcolmson
Treasurer	Mr. B. G. Jameson



Next in order in occurrence we record the Banquet tendered the Seniors by the Class of '98—an event marked by much good feeling and carefulness of execution.

THE PORTLAND
June 11th, 1897

Toast Master—H. A. MACCLYMENT

Toast Roll

Alma Mater	MR. C. T. MALCOLMSON
The Faculty	MR. W. E. WEINSHEIMER
The Outlook	MR. C. E. FREEMAN
Here's to '98	MR. E. G. HINDERT
Good Bye	MR. H. T. MANLOVE
Au Revoir	MR. F. B. HALL

Graduating Exercises

Our History is now complete as far as Sunday, June 13th, 1897. On this date, at Plymouth Church, the Rev. John Henry Barrows, D.D., of Chicago, delivered the Baccalaureate Sermon.

Monday, June 14th

AT THE INSTITUTE

3:00 P. M. The Academy Reception. The unveiling of the illuminated window presented to the Institute by the graduating class of the Academy.

8.00 P.M. The Technical College Reception.

10:00 P. M. The Senior Hop. Committee in charge: C. T. Malcolmson, E. S. Church, W. F. Sims, W. A. Derby, J. R. Sloan. The program was designed by Mr. Malcolmson.

Tuesday, June 15th

8:00 P. M. The First Annual Commencement of the Scientific Academy. Address by Rabbi Emil G. Hirsh, Ph. D., minister to Sinai Congregation, Chicago.

Music by Glee Club.

Wednesday, June 16th

AT THE INSTITUTE

3:00 P. M. Fifteenth Annual Commencement of the Kindergarten Normal Department.

4:30 P. M. Reception to the Graduating Class of the Kindergarten Normal Department.

Thursday, June 17th

8:00 P. M. AT PLYMOUTH CHURCH

First Annual Commencement Exercises of the Technical College.

Music — Organ, - - Mr. Otto G. Pfefferkorn

Procession of Graduating Class

Invocation

Annual Institute Address,
"The Removal of Discontent"
Daniel G. Gilman, LL. D.
President of Johns Hopkins University.

Music — Vocal Duet { Misses Lucille Stevenson and Budena Farwell

Conferring of Degrees

Benediction



And so ended the First Commencement Week at Armour Institute of Technology.



General Institute Views



First Annual Banquet of the Graduating Class of the Academy

The Auditorium • • June 17, 1897

MR. MATTHEW C. BRUSH, Toastmaster

"Armour Tech."....MR. HOWARD F. HOLMAN

Prophecy....MR. EDWIN P. RYAN

Philip D. Armour....MR. BENJAMIN GREER

College Spirit .. MR. HARRY B. HAMLIN

Wit and Humor....MR. JAMES M. HERRON

Journalism .. MR. MILTON L. LIVINGSTONE

The Power of Mind....MR. WILLIAM J. CAMPBELL

Cuba Libre....MR. WILLIAM H. BUCHMAN

Chicago....MR. ROBERT T. FRY

Academic Training....MR. ARTHUR A. LOEB

Mining Engineering....MR. LE ROY WALLACE

Alma Mater....MR. LEONARD FLORSHEIM

"Esse Quam Videri, Bonus Melorios est."

ERNEST LE ROY WALLACE—President LEONARD C. FLORSHEIM—Vice-President

EDWIN P. RYAN—Secretary HOWARD F. HOLMAN—Treasurer



Theses in the Department of Mechanical Engineering

"Efficiency of the Cross Compound Engine with Throttling Governor and Variable Cut-off"

MESSRS. HALL, JOHNSON AND PERRY

"Heat Efficiency of a Fairbanks Gas Engine with Varying Loads and Mixtures of Gases"

MESSRS. LONEY AND WHEELER

Theses in the Department of Electrical Engineering

"The Heating of Wires in Metallic Circuits"

MESSRS. RICHARDSON AND O'BRIEN

"Dynamo Characteristics of a 20 K. W. Alternating Current Dynamo"

MESSRS. MAHONY, CHURCH, PRENNER AND JAMESON

"Dynamo Characteristics of a 100 K. W. Western Electric Direct Current Generator"

MESSRS. SIMS, SLOAN, GLOVER AND CHAPMAN

"Dynamo Characteristics of a 50 K. W., C. & C. Direct Current Dynamo"

MESSRS. RICE, SHEIBLEY AND SALAMSON

"Study and Analysis of a 1,500 Watt Transformer"

MESSRS. MATT, MALCOLMSON AND MORRISON

"Investigation and Design of a Special Type of D'Arsonval Galvanometer"

MR. C. E. FREEMAN



ISIDOR PRENNER, with Muncie Pump Co., 132-6 Mulberry St., N. Y.

R. H. RICE, Instructor in Mathematics, A. I. T.

ERSKINE RICHARDSON, Riverside, Ill.

MAX SALAMSON, 810 N. Lincoln St.

F. D. SHEIBLEY, with Cutter-Hammer Electrical Co., Chicago, Ill.

W. F. SIMS, Engineers' Department, Chicago Telephone Co.

J. R. SLOAN, Electrical Engineer, Pullman Palace Car Co., 120 Liberty St., N. Y.

J. J. WHEELER, with Board of Examiners of Architects of State of Illinois, 4440 Langley Ave.

PAUL R. CHAPMAN, Central Union Telephone Co. (1112 N. Clark St.)

EDWIN S. CHURCH, Mechanical Expert, U. S. Mint, Philadelphia, Pa.

C. E. FREEMAN, Instructor in Electrical Department, A. I. T.

B. H. GLOVER, Electrical Engineering Department, A. I. T., 6538 Stewart Ave.

F. BENSON HALL, Draughtsman, Rudolphi & Krummel Machine Works, City.

B. G. JAMESON, Chicago Edison Co., 3445 Armour Ave.

F. C. JOHNSON, Tuskegee Normal School, Tuskegee, Ala.

N. M. LONEY, Draughtsman, Office of Superintendent of Motive Power, Perma Co., Ft. Wayne, Ind.

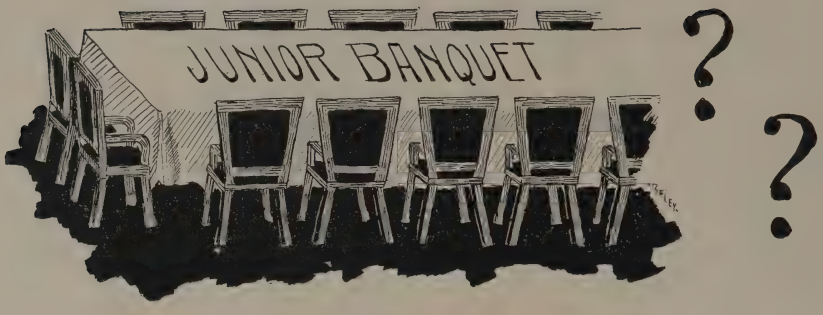
GERALD MAHONY, Electrician, Lokon Transformer Co., Elkhart, Ind.

C. T. MALCOLMSON, Assistant Engineer, Anaconda Mining and Hydraulic Power Co., Anaconda, Montana.

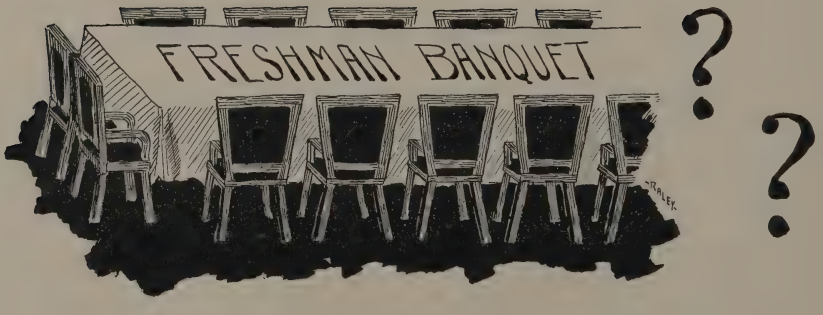
GEO. L. MATT, Lancaster, Ohio.

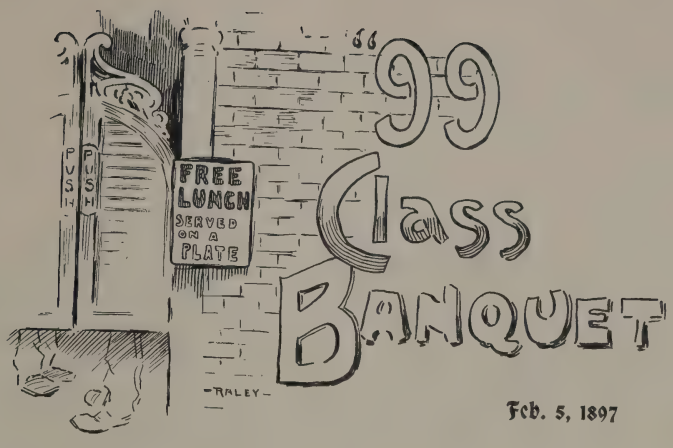
E. D. O'BRIEN, 4048 Indiana Ave.

R. V. PERRY, Draughtsman, Denver & Rio Grande R. R., Denver, Colo.



AN INTEGRAL PART OF
THE RECORDS OF
NINETY-SIX—NINETY-SEVEN





'99 Class Banquet

Feb. 5, 1897

Menu

Blue Points

Celery *Olives*

Puree Jackson

Filet of Sole, Tartar Sauce

French Fried Potatoes

Chicken Salad

Quail on Toast

Lettuce *Tomatoes*

Ice Cream and Cake

Roquefort *Swiss*

Coffee

Toasts

MR. J. W. O'LEARY, Toastmaster

"The Class of '99," - - - - - - - - - - S. T. COREY

"Our Social Life," - - - - - - - - - - E. S. ROOS

"The Electrical Engineer—to be," - - - - - - W. B. PAVEY

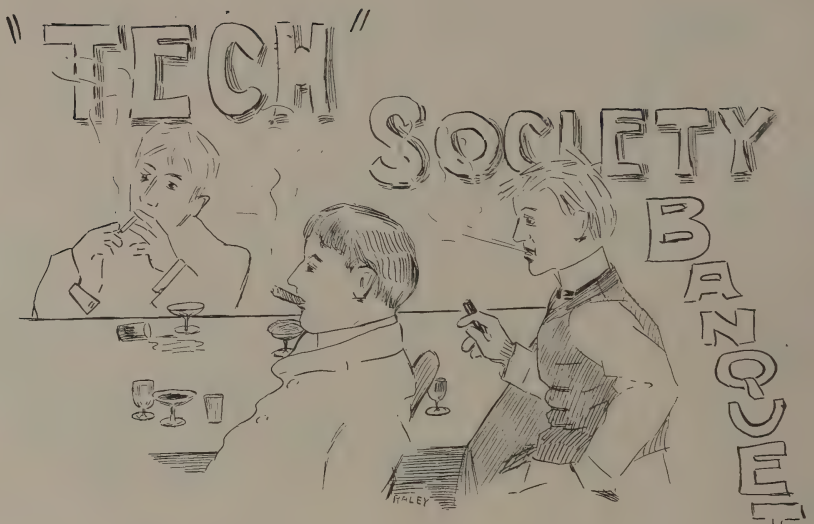
"The Mechanical Engineer—to be," - - - - - - W. WARREN

"Athletics," - - - - - - - - - - - A. HOMER GOODHUE

"Our Annual," - - - - - - - - - - - B. SHUBART

"The Possibilities of our Future," - - - - - - W. J. GORDON

"The Yellow and Black," - - - - - - MR. W. D. MATTHEWS



June 4, 1897

Menu

Ham *Chicken*

Olives *Preserves*

Claret Punch

Ice Cream *Strawberries*

Cakes

Fruits *Coffee*

Toasts

E. G. HINDERT, Toastmaster

"Our Past," - - - - - - - - - W. FARGO SIMS, '97

"Our Present," - - - - - - - - LOUIS H. FLANDERS, '98

"Our Future," - - - - - - - - - W. H. BEATTYS, '99

"Good-Bye," - - - - - - - - - - F. Y. LOW, '00

"Salutamus," - - - - - - - - J. RICHARD SLOAN, '97



OLD-TIME ORGANIZATIONS



Senate Society BANQUET

April 24, 1897

Menu

Cream Tomato Soup

Olives *Pickles* *Salted Peanuts*

Baked Trout

Tomato Sauce *Cream Potatoes*

Turkey

Sweet Peas *Cranberry Jelly*

Baked Potatoes *Radishes* *Sweet Potatoes*

Salad

Wafers *Cheese*

Strawberries and Cream

Assorted Cakes *Coffee* *Bon-Bons*

Toasts

W. J. Gordon, Toastmaster

"The College,"	E. V. Starkweather
"Sports,"	C. L. Tarbell
"Assemblies,"	L. I. Porter
"Glee Club,"	E. C. White
"The Library,"	H. A. MacClyment
"Our Societies,"	E. S. Roos
"Domestic Arts,"	C. P. Schroeder
"Our Faculty,"	E. W. Lyman
"Our Girls,"	W. D. Matthews



"JUNE"



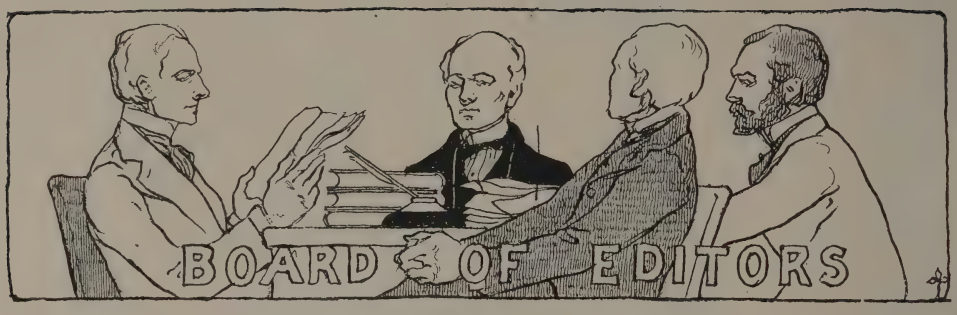
T. W. Stevens	Editor-in-Chief
M. H. Arnold	Resigned
A. G. Langworthy	Business Manager

Assistant Editors

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W. I. Lewis	Literary
R. J. Raley	Social
W. E. Miller	Athletics
E. A. Smith	Exchange

Class Representatives

H. J. Slaker	Senior
S. T. Corey	Junior
G. F. Hayden	Sophomore



Editor-in-Chief

WILL D. MATTHEWS

Associate Editors

Athletics—BENEDICT SHUBART

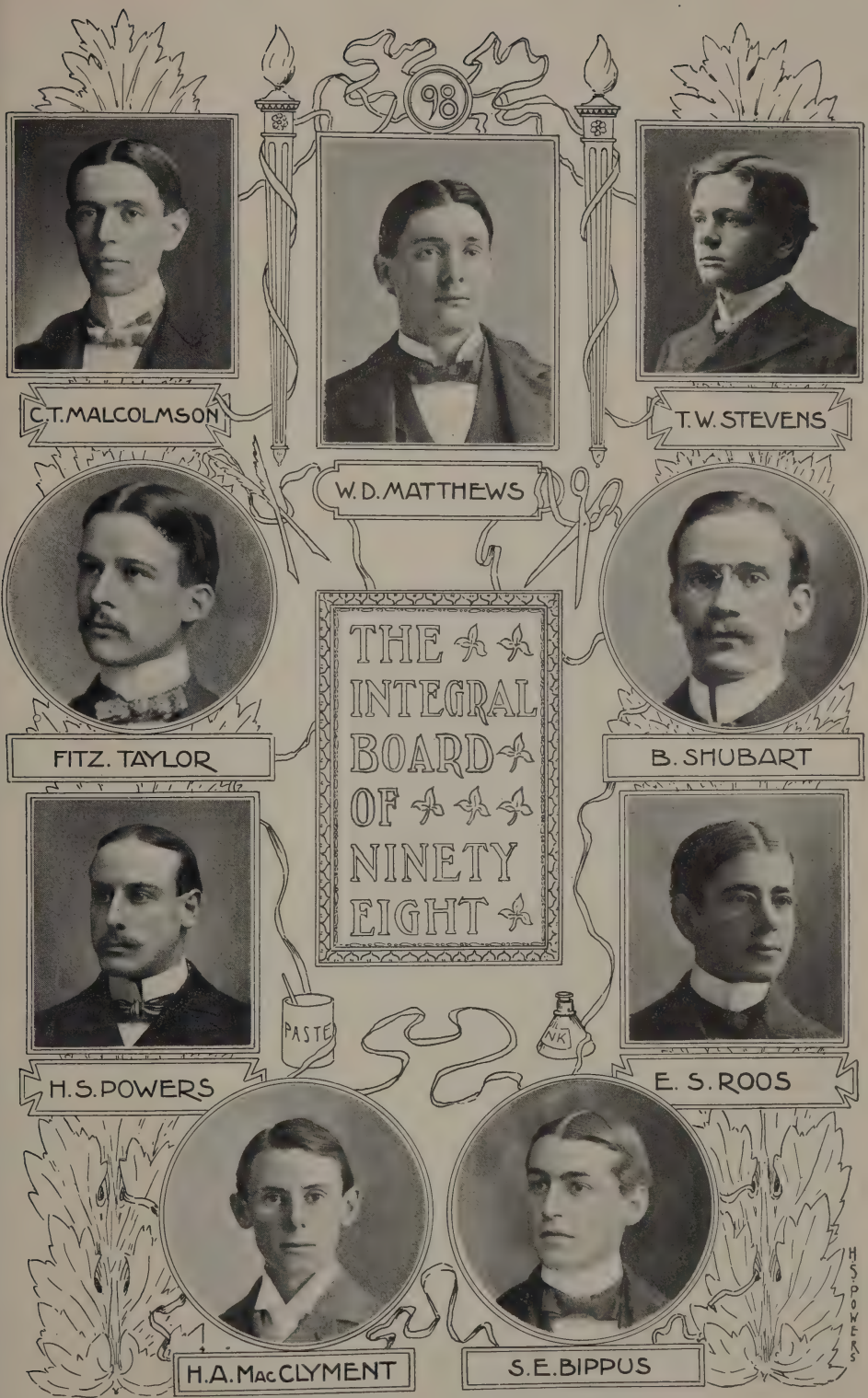
Architectural Department—HORACE S. POWERS

For the Alumni—CHAS. T. MALCOLMSON

Historians—ERLE S. ROOS FITZHUGH TAYLOR THOMAS W. STEVENS

HARRY A. MACCLYMENT—Business Manager

SUMNER E. BIPPUS—Assistant Business Manager


98
C.T. MALCOLMSON
W.D. MATTHEWS
T.W. STEVENS
THE INTEGRAL BOARD OF NINETY EIGHT
FITZ. TAYLOR
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H.S. POWERS
E. S. ROOS
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PASTE
INK
H.S. POWERS

COURSES



PHYSICS AND MATHEMATICS
ARCHITECTURE
MECHANICAL ELECTRICAL

Normal Kindergarten Department

The Chicago Free Kindergarten Association, affiliated with Armour Institute and constituting its Normal Kindergarten Department, aims to train women for the education of children according to the truest principles. The necessity for a complete and harmonious development of the child nature has become so generally recognized that a thorough study of the objects pertaining to this end must soon constitute an essential part of the education of every woman. The Free Kindergarten Association has had many years of valuable experience in practical and intellectual lines of work, and therefore offers to its students exceptional advantages. Applicants must give satisfactory evidence of good health, moral character, and of such culture as is requisite for proper standing with the profession and the public.

The two classes as now composed consist of seventy young women.

Connecticut and Colorado, Minnesota and Alabama, and nearly all of the included and surrounding states are well represented.

Last June, twenty-six young ladies received diplomas from the Association, having completed the two years course of study. Nearly all of these are teaching this year in the public school kindergartens, under associations, or in private work.

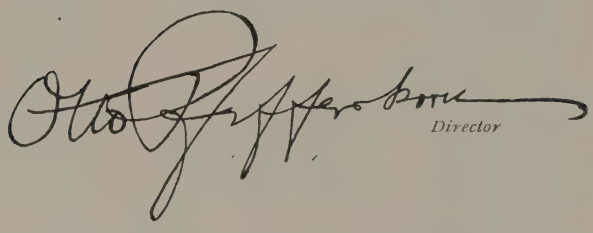
Eva B. Whitmore

Anna E. Bryan



Affiliated Departments

The Department of Music



The Department of Music, under the direction of Mr. Otto W. G. Pfefferkorn, became one of the associated departments in 1894. It embraces the following branches of instruction: Pianoforte, Organ and Composition, Voice, Violin, Violoncello, Cornet, Flute, Mandolin, and Harp.

The Faculty

Is one of the most complete in the city, and is composed as follows:



Pianoforte	Nellie Bangs Skelton Otto W. G. Pfefferkorn
Organ and Composition	Otto W. G. Pfefferkorn
Voice Culture and Singing	Herman Walker
Violin	Theodore Spiering
Violoncello	Herman Diestel
Cornet	John Skelton
Mandolin	S. Tomaso
Flute	R. Rivkin

Assistant Teachers

Nellie Hitchcock — Isabel Morgan

Henry Eames

It has been the habit of the faculty to give, during each year, a series of concerts and recitals. These not only serve to stimulate the musical interest of the pupils, but add to the social functions of the Institute.

Nothing which could be said about the department would convey as much of an idea of the quality of the work done as will a glance over the following programs, selected at random from among the many which have been rendered since the early days of the Institute:

First Faculty Concert

JANUARY 17, 1894

String Quartette in D Major . *Mendelssohn*
(First Movement)
THE SPIERING QUARTETTE

Tenor—"Adelaide" *Beethoven*
MR. WHITNEY MOCKRIDGE

Piano—(*a*) "Nachtstueck" . . *Schumann*
(*b*) Valse Tourbillon . *Goldbeck*
MRS. NELLIE BANGS SKELTON

Soprano—"La Zingara" . . . *Donizetti*
MRS. GENEVRA JOHNSTONE BISHOP

Piano—"Hungarian Fantasie" . . . *Liszt*
MR. OTTO PFEFFERKORN

Vocal Quartette—"Come, Dorothy, Come"
MRS. GENEVRA JOHNSTONE BISHOP
MRS. EMMA B. HODGE
MR. WHITNEY MOCKRIDGE
MR. C. S. LEE

String Quartette in B Flat Major . . *Mozart*
(Last Movement)
THE SPIERING QUARTETTE

Faculty Concert

NOVEMBER 11, 1897

1 Trio—Novelletten, op. 29 *Gade*
(Piano, Violin, Violoncello)
MISS HITCHCOCK
MESSRS. THOMASON AND SCHOESSLING

2 Contralto—"The Quest" . . . *E. Smith*
MISS FARWELL

3 Piano—(*a*) Album Leaf (*b*) Chrysalis
Otto Pfefferkorn
(*c*) Polonaise in E *Liszt*
MR. PFEFFERKORN

4 Soprano—"When Thou Art Near Me" *Lohr*
MISS STEVENSON

5 Organ—"Semiramide" . . . *Rossini*
MR. DE COSTER

6 Basso—"Honor and Arms" . . *Handel*
MR. RICHARDS

7 Mandolin—Fantasie from "Somnambula" *Bellini*
MR. SINGER

8 Vocal Duet—"The Gypsies" . . *Bordese*
MISSES STEVENSON AND FARWELL

9 Organ—(*a*) Romanza *Tmohe*
(*b*) Improvisation . *De Coster*
MR. DE COSTER

Piano Recitals

BY MR. PFEFFERKORN

FRIDAY, OCT. 12, 1894

Chopin Fantasie, Op. 49
Schumann . . . "Nachtstueck"
Henselt Study in F Sharp Major
(*a*) Valse de Concert
Rubinstein . . . (*b*) Barcarolle, G Major
(*c*) Staccato Study

FRIDAY, OCT. 19, 1897

Beethoven Sonate Op. 57
Assai allegro
Andante con moto
Allegro ma non troppo
Liszt . . Nocturne ("Liebestraum")
Heyman . Elfenspiel ("Play of the Elves")
Raff . . . Marcia (From Suite, Op. 91)

Piano Recitals

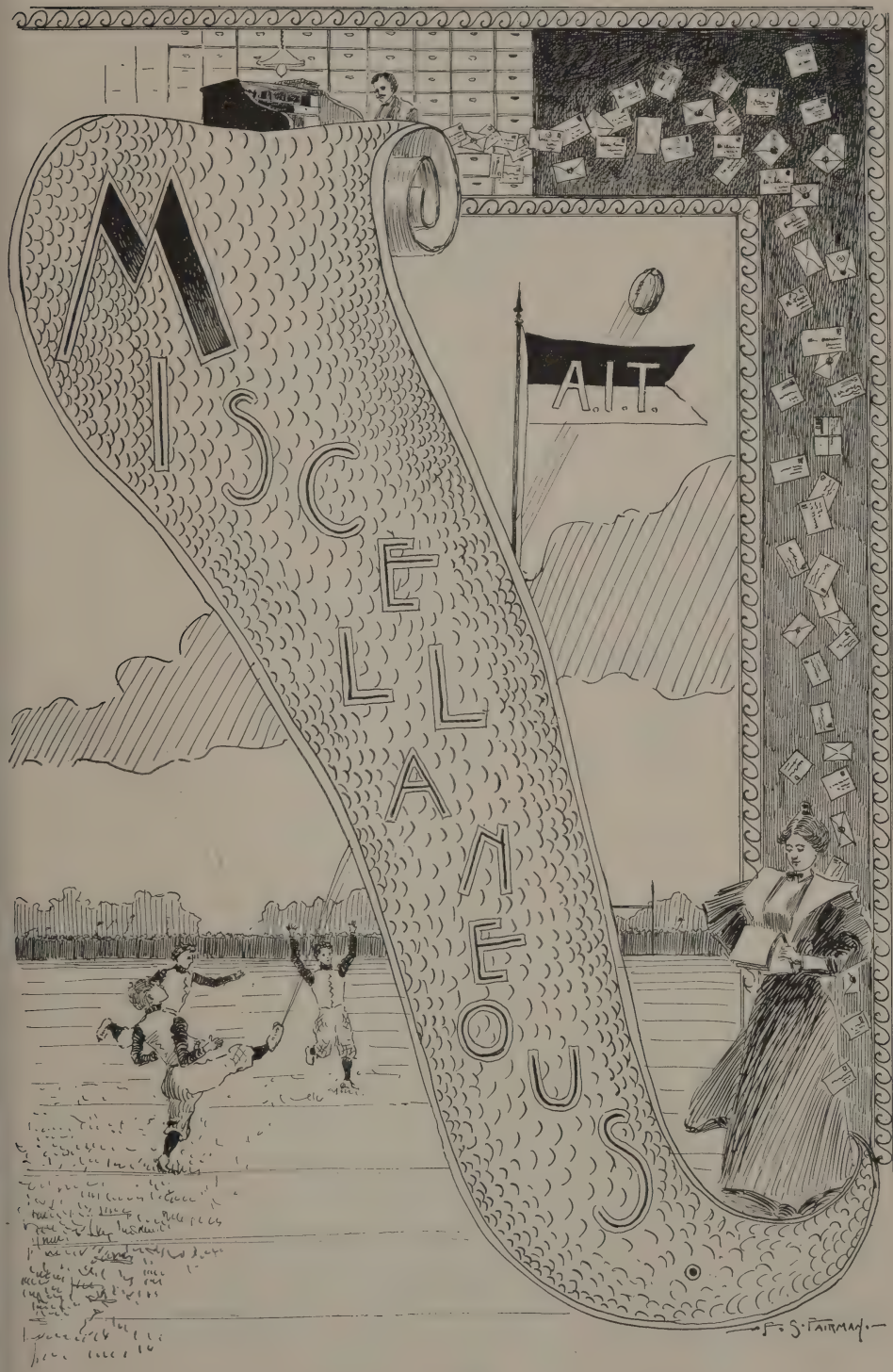
BY MR. PFEFFERKORN

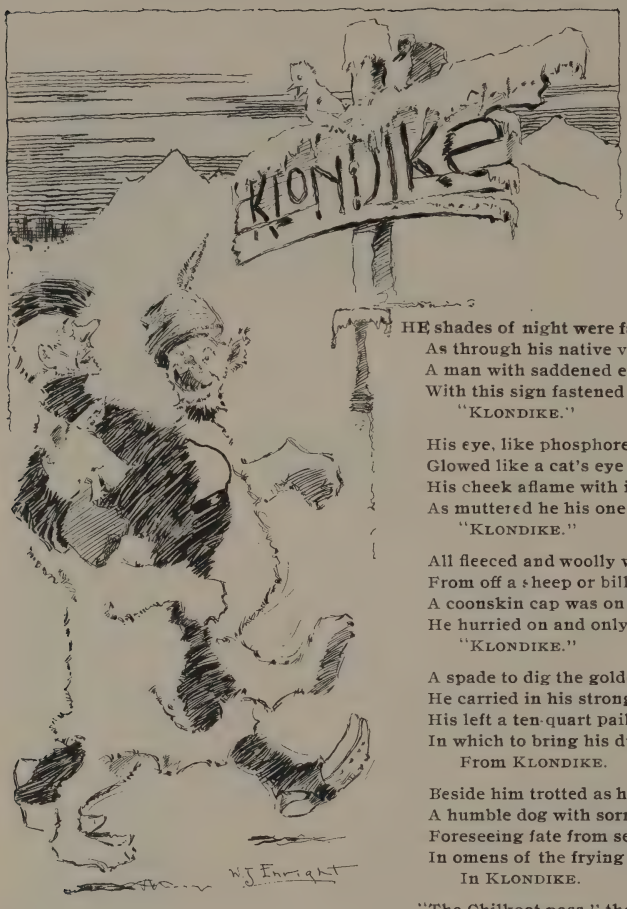
FRIDAY, OCT. 26, 1894

Merkel . Prelude and Fugue in D Minor
[Transcribed for the Piano by Mr. Pfefferkorn]
Schubert . Impromptu in B Flat Major.
Chopin . Nocturne in D. Flat Major.
Liszt . . Valse (from Gounod's "Faust,")

DECEMBER 3, 1897

Beethoven . . , Sonate—Op. 27, No. 2
("Moonlight" Sonate)
Grieg Ballade—Op. 24
(Theme and Variations)
Schumann , . Romanza—In F sharp, Op. 28
Chopin Scherzo—Op. 39
Otto Pfefferkorn (*a*) "Greeting" (Album Leaf)
(*b*) "Chrysalis" (Air de Ballet)
Schubert-Liszt , (*a*) "Hark, Hark, the Lark"
Liszt (*b*) Polonaise


MISCELLANEOUS
A.I.T.



(Longfellow up to date.)

THE shades of night were falling fast
As through his native village passed
A man with saddened eye, and dim,
With this sign fastened onto him:
"KLONDIKE."

His eye, like phosphorescent spark,
Glowed like a cat's eye in the dark;
His cheek aflame with inward fire,
As muttered he his one desire:
"KLONDIKE."

All fleeced and woolly was his coat.
From off a sheep or billygoat;
A coonskin cap was on his head—
He hurried on and only said:
"KLONDIKE."

A spade to dig the golden sand
He carried in his strong right hand;
His left a ten-quart pail did hold,
In which to bring his dust of gold
From KLONDIKE.

Beside him trotted as he went
A humble dog with sorrow bent;
Foreseeing fate from selfish man,
In omens of the frying pan,
In KLONDIKE.

"The Chilkoot pass," the old man said,
"Is over yonder—up ahead."
The solemn miner, somewhat vexed,
Said "Let 'er pass; I make it next,
For KLONDIKE."

"Oh, stay," the maiden said, "and rest
Thy weary head upon this breast."
"Go to!" he cried; "thy love will trust
The fellow who brings back the dust
From KLONDIKE.

"Beware the price of garden truck;
Beware the nimble, gay Canuck!"
This was the farmer's last good-night;
"And take the first road to the right
For KLONDIKE."

A man was found to neck in snow,
And hauled out by an Esquimaux,
All solid, rigid, stiff, and dead,
His idea frozen in his head—
KLONDIKE.

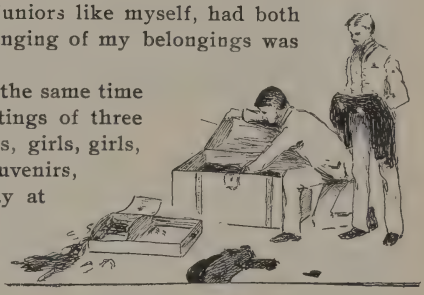
On Yukon's bank at break of day,
Lifeless but well preserved he lay,
While o'er his head in solid ice
They carved this simple, plain device:
"KLONDIKE."

Joseph Bert Smiley.



THE days of our Summer outing were over, and agreeable to the calling of the school year calendar the fellows were gathering in at "Lincoln Tech" for another quarter's work. My manner of living was to change somewhat that year. Uncle Bob, with whom up to this time I had lived in the school town of Brighton, had moved too far away for me to continue longer as a student member of his family. So I readily took advantage of my "Frat" house privileges and was installing myself in easy quarters, second floor of the Gamma Sig House that afternoon.

My old chums, Norm. Howe and Jay Clarkson, Juniors like myself, had both pulled in ahead of me and the unpacking and arranging of my belongings was progressing in a strictly go-as-you-please style.



There we were, all three recounting at one and the same time the varied experiences incident to the summer's outings of three young men: The girls-fish-girls-pictures-girls-prizes, girls, girls, girls. The floor and furniture was littered with souvenirs, clothing and the usual impedimenta of fellows away at school. Two open trunks had been overhauled, and this "stuff" was mostly new to Norm. and Jay. Bit by bit had been picked out and assigned a place—indeed the walls were bidding fair to reach some state of decorative art.

"Say Hal, who lost that?" as a pink kid ball slipper fell out of a box.

"Well, now you fellows must remember that I came up here from a co-educational school, so no questions asked."

Finally I did unlimber and many a bit of choice school romance I reeled off as this or that reminder of a glorious four years with the girls came to my hands.

"What have you for that choice little perch there, old man?" inquired Jay, as he winked at Norm. I took the hint and from out of a secure pocket of the small trunk produced my choicest treasure. Norm. raised up from the pile of pictures which lay scattered about him to reach for this new one. "Say now, Mr. Man, she—I'll bet she has stirred the heart of Harold Foxhall and many an other undergraduate at no far distant time. She's a picture. I'll trade you anything I've got; why Jay, you've not a thing anywhere near her. But Hal who is she, your sister? tell us," and all the time those two fellows were raving over that picture in this rather uncomplimentary yet picturesque style I was standing gazing downward, more that pleased, yet saying not a word.

In all my experience at the good educational school of Bateman I had not had any, not heard of any, more novel to me than was always brought to my mind as I looked at this picture. In my "Tech" days and vacations "her" picture was always with me. It carried me back to that day of June, 189–, when three-quarters of a hundred strong we (boys and girls) had succeeded to our first degrees. And among all the fair ones on that platform none could approach this one in fairness, in bright, young womanhood. As I sat behind her, she was so beautiful, a poem in white, my eye glanced off to the balcony and there I saw Clara; but the two fellows would have the history of this "case," as they called it. Norm.

dodged off to a "what-not" and came back with his last year's briar, and from the way he and Jay settled themselves it would be easy to see that they knew some lengthy epic was on my tongue.

"Boys, you missed school life most awfully when you passed the usual college life and came straight to Lincoln. Here we are just a grinding, droning, uninteresting lot of young engineers. Of course, this sort of seclusion is best suited for the final touches a man needs before entering his specialty; yet there is a proper time for living in the real college atmosphere, and few indeed pass through even a smattering of it without the consciousness of touching novel, exciting, yet withal most pleasant, experiences. So the little story I have to weave about that picture is an unwritten chapter common to the lives of several characters at old Bateman.

"I entered that school, without doubt, the humblest Freshman who ever dared to look in the eyes of a Senior. For two years there was not a quieter, more retiring student at the institution. Attention to my necessary studies was my only task. Yet during the second year I was fortunate enough to be spiked by every 'Frat' in the school. I say 'fortunate' though I joined not, because it seemed to me I could not stand the publicity, the change from my quiet life into that of the gay Greek world.



"By the Fall term of our Junior year my baggage was surely growing more burdensome. During that summer there had been visiting in my little country village a young lady from the very seat of Bateman. Somehow I took charge of her and indeed the task was a most welcome one. Her nature was as charming as her face. I was at least three years older, but minded not that difference. We were inseparable the entire time of her stay. Immediately upon my return for the Junior year the first act was a call upon the aforesaid young lady. She was not one of our college girls and hence I was thrown in with a town crowd.

"Shortly before the World's Fair closed I took a train for the city by the lake to get a final glimpse of the fading wonders of the White City. The journey took up the entire day. On the way I fell in with a young fellow bound for the same destination as myself. His name was Eugene Rowe, his occupation was not important, indeed, he intended going away to some higher school very soon. Now you know fellows, that I've always most loyally contended for 'Old Bateman' so here was my opportunity. The result was that the next term saw my chance friend Gene a regularly registered student. I kept a kindly lookout over him and he got well settled in a short time. All the while your humble servant was enjoying the company of his town girl, Clara.

"The social position of her parents in the city made my 'find' even the more valuable. Clara was of a most loving and lovable temperament. I soon found myself becoming attached to her in bonds of strongest friendship, even of love. But for any feelings I entertained for the young lady I knew they were reciprocated.

"By the way, that's her picture over there; that square card. Yes, it's a face tender and full of meaning. My college mates all concluded that my fate was sealed. My attentions to the girl were regular and most persistent. I found I could help her in many ways and these very acts riveted us together the more firmly. I was only a Junior and yet so rapidly was I falling in love with this girl that I knew not where another vacation would land me.

"And so passed the first two terms of the Junior year. Young Rowe was progressing and was making a good name for himself in the affairs of the Freshman class. An excellent baritone voice had won him a place on the Y. M. C. A. quartette and his indoor athletic work gave promise of some point work in the field meets of the Spring. And Clara and I were a happy pair in a beautiful world. Spring came, school work lessened. The evening bicycle rides, the Saturday excursions to the woods and the open air parties were our never ending amusements. Affairs between us were of the same happy order, though I was constantly worried at the precipitate love tendencies of the girl. Commencement season returned once more. According to all college traditions my class was the one in charge of the chief events of the week. Among them was the Junior Farewell Hop to the Seniors, a classic event. There were several in my own large class totally unknown to me, and as this

was the general condition, there was the custom in arranging for class affairs for the boys to draw for company. My name was drawn with a charming little conservatory student from Missouri. But as the girls slightly outnumbered the boys, our names went back for extra company. Mine drew a second prize, and a young lady totally unknown to me, though we had attended the same lectures for a year. Blessed with two girls yet I knew the fellows considered me a lucky man on account of the 'quality' of my company. That same day I called upon my two young ladies, both accepted the outcome of the drawing. My second drawing at the class lottery had indeed given me a prize.

The night of our reception and hop arrived. My two girls were simply delightful. Under ordinary conditions I care little for dancing—enjoy looking on better than the exercise of the floor.

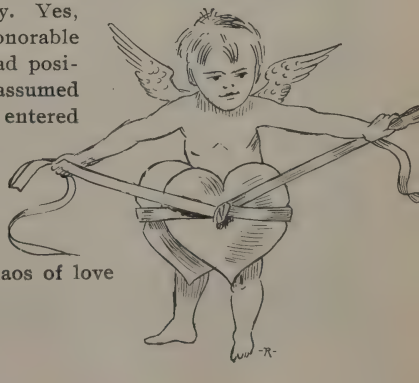
"But that night all was different and the dance was my fascination. Waltz and figure my beautiful prize and myself were whirling through. I was surely enjoying myself in my own free and open style and the close attentious I paid the young lady were only those which a gay nature would call out in a like natured young man. I am sure all attentions were harmless, without thought of anything further. I was at that time reporting for the *Mail*, a friend of my own age was holding a similar position on the *Register* staff. In his rounds that evening he entered our reception quarters and saw just what all the others saw, that Harold Foxhall was apparently in the clutches of another girl.

"The next evening found me calling upon my good town girl. Together we went to the home of a friend for a little porch party. All was as merry as usual in our little crowd. My reporter friend dropped in and at once loosened up over Foxhall's duplicity and I thought the little lady rather enjoyed the teasing and helped it along myself. But I missed my guess, whew! On the way home I got in deeper and deeper, from admonition she turned to pleading and tears; it seemed to sicken me, my nature was as free from jealousy as I had imagined her's to be. You can only guess how glad I was when her home was reached and she was deposited there. I saw that I must quit all attentions to her and I did.

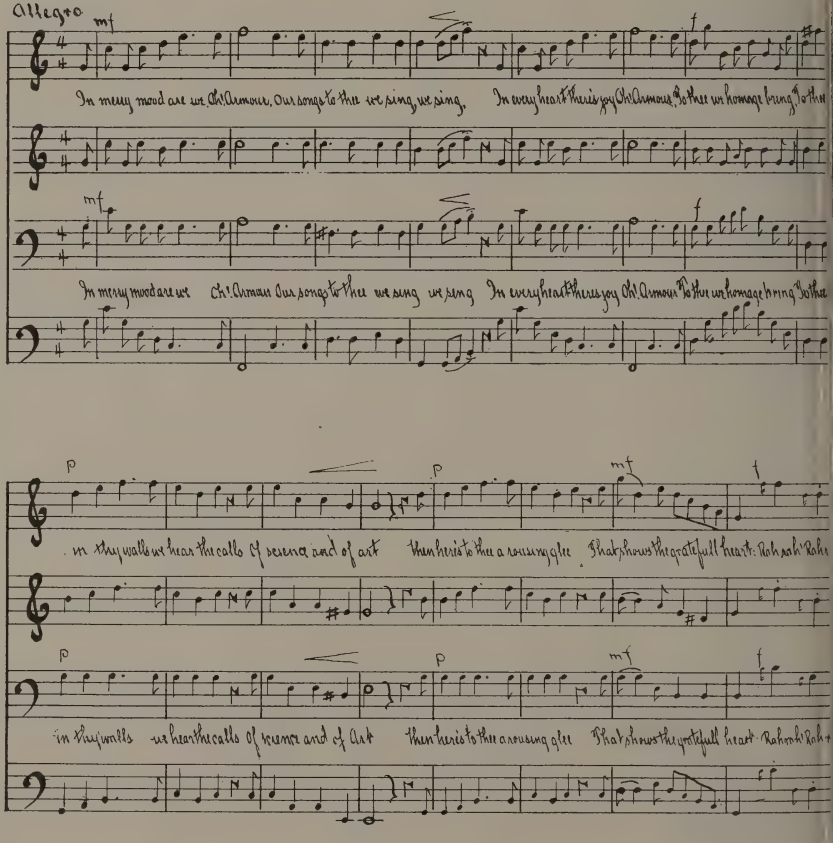
"It was the end of the school year and hence the people did not notice as they ordinarily would. But it was a dead stop. Summer bore on very slowly. Just what I was to do the next year I did not know (that is I mean on the matter of company) for every Senior must have his girl and I had vowed there were none at the Ladies' Hall of my choosing. The fall term opened, Clara and I spoke, were very friendly, but that was all. I was extra busy. The opening reception for all the students came around. I attended in the company of my room-mate. But there at a frappe bowl presided my prize of the spring before. My credit at that stand was likely to be soon exhausted. Just as pretty as a peach and as popular as she was gay. I was free this time to admire and my heart was touched for sure. Soon we were wandering off together and were again acquainted.

"That's the small beginning of a delightful school year. We were as inseparable as my town girl and myself had been. One day while strolling along most happily together a Senior lady caught up with us and remarked: 'You two people do seem to always enjoy yourselves.' So we did. My own home was thrown open to the young lady, Edith Wyeth was her name, at our short vacation times. For when I had carried her picture home early in the Fall my mother and father were glad to welcome her, too. It is needless to say that our comradship ripened gradually into love and courtship. The bright days of Commencement week were full of sadness for us two.

"Through all that year I had seen little of Clara. Commencement morning from my post on the stage of the Auditorium I saw her in the balcony. Yes, I'll confess I've often wondered whether my course was honorable all through, but it was my only chance to retire from a bad position. But now stepped in my young protege, Gene, and assumed care over Clara, and I gave them my fullest blessing. She entered college again that next Fall, and from all I heard Gene and she were as happy as any of us could expect to be. So I was entirely eased. Why of course, that's Edith's, Miss Wyeth's picture; and fellows, she is to come up at X'mas when we throw the house open to the girls, then you'll see the young lady who brought order out of my chaos of love affairs."

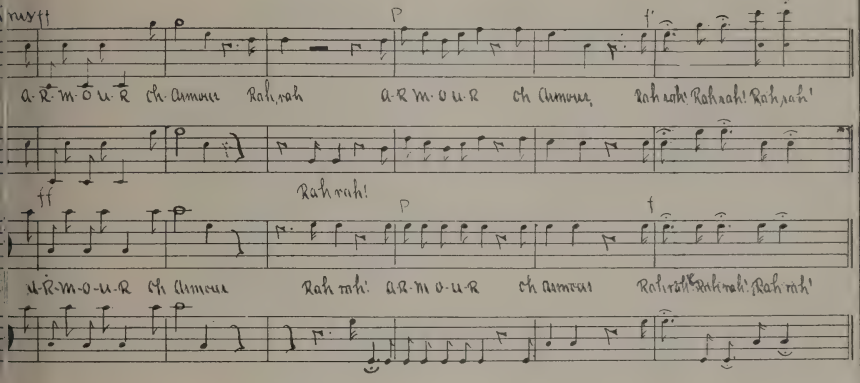


"ARMOVR"


Allegro
mf
In merry mood are we Ch! Armour. Our songs to thee we sing, we sing. In every heart there is joy Ch! Armour. To thee we homage bring. To thee
In merry mood are we Ch! Armour Our songs to thee we sing we sing In every heart there is joy Ch! Armour To thee we homage bring To thee
p
mf
f
In thy walls we hear the calls of revenge and of Art then here's to thee a cheering glee That shows the grateful heart. Rah rah! Rah
In thy walls we hear the calls of revenge and of Art then here's to thee a cheering glee That shows the grateful heart. Rah rah! Rah

BY

W. TUDOR ARMADOC



For thou hast shown thick life Oh! Armour
So full of pleasant ways
Thy spirit in our hearts, Oh! Armour,
Will brighten all our days.
Then may our land, so great and grand
Rejoice because of thee
And give thy name eternal fame,
While thousands join our glee
Rah rah! Rah rah! Rah rah!

And while the years roll on Oh! Armour,
In many a curtained throng,
Will aim to honor thee, Oh! Armour,
And sing thee many a song
Where'er we be, the thought of thee
Will cause a rousing cheer
In life's success thy name will bless
And hold thee ever dear
Rah rah! Rah rah! Rah rah!



Our Artists

Below is given a complete list of the artists whose works are contained in this volume, and to whom the Editorial Board wish to extend their sincere thanks and appreciation:

MESSRS.

JAMISON — Art Institute
RAE — Art Institute
COWAN — Art Institute
KLEIN — A. I. T.
MUELLER, '96 — A. I. T.
BOURKE — A. I. T.
POWERS — A. I. T.
MARIENTHAL — A. I. T.
ALBAN — A. I. T.
FAIRMAN — A. I. T.
MORRIS — A. I. T.
PARADICE — A. I. T.
WATSON — A. I. T.
RALEY — A. I. T.
STEVENS — A. I. T.
GAW — A. I. T.
PAVEY — A. I. T.
LEWIS — A. I. T.
SMITH — A. I. T.
MALCOLMSON — A. I. T.
KAPPES — A. I. T.
RICHARDSON — "Daily News"
LANG — "Up-to-Date"
ENRIGHT — "Up-to-Date"
ESTERLY — U. of W. Artist '98 "Badger"
HOWE — Formerly Designer for C. D. Peacock

MISSES

HILL — Art Institute
MITCHELL — Art Institute
MILLER — Art Institute
MOWRY — Art Institute
GARRISON — A. I. T.
WALLACE — A. I. T.
JAMESON — Indianapolis
ROPER — "Four O'Clock"



FARADAY

From a pen sketch by
CHAS. T. MALCOMSON, '97


News of
the
Past =
Letters
from
Armourites

CORNELL UNIVERSITY

January 15, 1898.

BOARD OF EDITORS, INTEGRAL '98—

My Dear Sirs: News has reached me that the INTEGRAL '98 is almost ready for publication. I have been both surprised and delighted. The thought of our first Annual, the crowning glory of '99, has been with me constantly since its conception. It clings as tightly as did the protege of our honored class mate, J. A. W—l—y, on that memorable day in St. Joe, when he learned so forcibly the truth of that old adage, (slightly modified), "it is not always well to have two strings to one's 'beau'."

In my thought on this volume, I have classified its contents, in my mind, under four headings: Song, Art, Literature and Humor. The humor was always plentiful in '99; the literature could not be lacking after the development of paragraph writing last year; art was often present in the form of the living picture display of the forge wash room, where the towel brigade held sway, and its pictures judged of such value that they were requested to present themselves to higher authorities for awards; and, lastly, '99 always did hold forth in song, as her membership in the Glee Club proves.

To collect the items under such headings has been your privilege. That it has been quickly done, I know; that it has been well done, I am sure; and I hasten to extend to you my heartiest congratulations.

Very cordially yours,

J. W. O'LEARY.



Pullman's Palace Car Company

EASTERN DIVISION.
OFFICE OF SUPERINTENDENT,
Beard Building, 120 Liberty St.

J. S. MERRILL,
Superintendent

New York, Jan. 25, 1898.

EDITORS OF INTEGRAL '98—

Gentlemen: You ask me concerning my recollections of college life during the first years of "Armour." You know that the class which entered A. I. T. as Freshmen in the fall of '93 were an exceptional lot, being mainly composed of fellows who had been out rubbing up against the world, and found out the value of a dollar for themselves.

After acquiring this knowledge they appear to have taken stock and decided to enlarge their earning capacity by the addition of a little theoretical training.

Judging from the general tone of the boys along about June, '97, I know they were dubious as to just where to look for the "jobs." An abstract from a letter I received is about as follows: "I've got a Job! Yes, sir, I, B—— S——, have a job, a real, genuine, bona fide job. Just think of it!" But I'm very glad to see how well taken care of most of our fellows are.

I have just the space I guess to recall an event or two from past history.

Do you remember, how on Chicago Day at the World's Fair, about fifty of us worked the free lunch route, and actually paralyzed the Midway? Or that little incident during our football practice, when the subject of inquiry was not "who struck Billy Patterson?" but "w'ere's de felly wot hit Dempsey?"—how Aspinwall squared off and offered to give the necessary information, but the big brother, after sizing him up, decided to listen to an explanation which resulted in Dempsey getting one of the best thrashings ever a kid received. And then that trip to De Kalb, when the "Armour's" eleven whipped the eleven from the South Side Athletic Club. Any one who took that trip will never forget it. The early days were full of "song and pleasure," and I am not at all dissatisfied with the lot which threw me in with the boys of '97.

Yours fraternally,

J. RICHARD SLOAN.

F. W. GUNSAULUS, President.

ARMOUR
INSTITUTE OF TECHNOLOGY
CHICAGO

JESSIE S. VAN VLIET, Librarian.

EDITORS '98 INTEGRAL:

It is very pleasant to have occasion to stop and think over the early days of the Institute—not so far away, surely, that they have become very dim as yet, but still it is not often in these days that one takes the time to retrospect.

When I first saw the Library—in March, '93—it bore small resemblance to its present self. There was no furniture in the room except our own desks—the books being piled on tables made of long boards laid on saw horses. We were very proud when the cases came and we could get the books up and in order, and then the chairs and tables came, and gradually order was evolved out of chaos.

The opening day of school! Surely no one who was there can have forgotten it. How *hot* it was! Hottest day ever known (at least, so it *seemed*), and *how* the throngs of would-be students came down upon us making our erstwhile quiet halls resound.

Our ten library school students were of vast importance, and the members of that first class will always seem to us to have been a *little* brighter and a *little* dearer than any others. They had a decided advantage, too, in the amount of personal attention which they received from Miss Sharp, which was of untold value to them and which was impossible with any subsequent class.

It was during that first year that, liking the looks of the boys in the Technical College and wanting to know them better, we one evening changed the library from its business-like aspect to a more home-like one and asked them to come. Each was also privileged to bring a friend of the gentler sex. One still hears echoes from that evening.

During the second winter we got into the habit of meeting, late on Friday afternoons, in the tiny music room at the mission. That was a "blizzard" winter, and we never failed to have one on Friday afternoon, but all the jollier were the times we had inside, when the Glee Club woke the echoes with their songs, and many a friendship started or grew over the little cups of tea.

Some of our visitors were of a suspicious nature, or from some other cause, became very inquisitive as to the way the tea was made and made frequent trips to the little room used as a pantry, where the girls took turns at superintending. Others, not alone, explored the mysterious, shadowy corners of the chapel.

Ours is a steady round of life in the library, occasionally enlivened by some incident, as when, one day, a stout countrywoman came in and asked in stentorian tones, "Vill you please gif me a catalog so I find out how mooch it cost when a boy learn someding?"

If anyone asks for Lord Bacon's "Lights of History," you must know instantly that the book wanted is Lord's "Beacon Lights of History," or if it is "Beside the Bramble Bush" that is called for you must go at once and get "Beside the Bonnie Brier Bush," and take care that there is no lurking smile on your lips when you hand it to them.

Occasionally, too, there comes a letter from some unknown person asking for a position in the library, the only stated qualification being that she is "fond of reading," or "likes the aroma of a library," or is "a widow with six small children."

If they be as they say, "fond of reading," my advice to them is to beware of library positions, as leisure time is there an unknown quantity.

Jessie S. Van Vliet

* * *

ARMOUR
INSTITUTE OF TECHNOLOGY
CHICAGO

CHICAGO, Ill., Jan. 15, 1898.

DEAR MR. EDITOR:

Since receiving your request for a letter giving some personal experiences during the early days of the Institute, I have sought to concentrate my mind upon the events of the first two years. In trying to "recombine the wandering images, to snatch them from forgetfulness," and shape and mould them into some kind of literary form, I have had but indifferent success. But the most treacherous memory must retain a vivid impression of the opening day of Armour Institute. Who could forget that noisy, eager crowd of nine hundred applicants which filled the large auditorium and galleries, while many hung over the railings, all clamoring for admission? The hushed silence and awe that came over that vast multitude as Dr. Gunsaulus raised his hand invoking a blessing upon this undertaking. Then came the separation of the sheep and the goats. Many had come in answer to the call, but not all could be chosen. Mr. Armour and Dr. Gunsaulus had counted upon three hundred applicants and here were thrice that number. Then the edict went forth that some of the departments must hold their classes in the mission building. Like a great mother hen the "magnificent five-story fire-proof building," as the year book says, spread its wings and gathered beneath them the departments of Mechanical and Electrical Engineering, Chemistry, Physics, Mathematics, Literature and the Domestic Arts, but had no room for the languages; they must seek admission within the holy walls of the Sunday school rooms in the mission building. Accordingly Prof. Monin took possession of the rooms under the organ lofts. Miss Wright gave a classic atmosphere to the teacher's room, while I with my German brood wandered from Sunday school room to Sunday school room, profaning those hallowed

Nature and I are Friends.

Winter and I are friends:
his rushing winds
Are plunging horses for
our sky-course wide
From billowy manes fly
snow flakes as we ride
Upon my feet his piercing
spurs he binds





Springtime and I are friends:
here at my feet
She showers her perfumed
wealth of blossoms fair,
Pours round about her waves
of humid air.
Summons a chorus of
bird voices sweet.

Summer and I are friends:
her sapphire seas
Chant for my ears, her
whispering reeds
Sing me to sleep. She takes
my hand, she leads
To where flow wide the tresses
of the trees.





Autumn and I are friends:
her calm, great eyes
Look deep into my heart, she
wraps me round
With robes of royal purple
only found
On slopes of sun-smoothed hills
and sun-set skies.

precincts with secular teaching. I am sure that we of the Language department could write chapters on the "casualties" of a disadvantageous situation. How often were our meditations upon the simplicity of the adjective declension rudely interrupted by the thundering roll of the great organ as it pealed forth a Gloria! The dim religious light (for only through stained glass did the few rays of light which penetrates to this part of the building, reach us) lent a glamour to elementary German, which succeeding classes have missed. Were ever classes interrupted by so many different kinds of music? I recall an occasion when the second bass of the Institute Glee Club, tossing back the Hyperion curl, which seemingly has neither waxed nor waned during these four years, boldly and courageously attacked a slippery verb; suddenly the soprano shriek of a budding prima donna rent the air as well as his grip upon the verb, and we realized that we were next door to the department of Music. Then we moved three doors south. This brought us near the court, which was the favorite stand of that peripatetic instrument, the street piano, and many an adjective was declined forcibly to the tune of "Ta-ra-ra-boom-de-aye," while "Sweet Marie" lost her bloom and sweetness and "Annie Rooney" became a detested female. I have often wondered at the native strength of the love of music manifested by the above mentioned second bass, which could withstand the "endless battery, the measured malice of music," that so constantly assailed our ears. Finally, owing to increasing demands for more room and the persistent efforts of Prof. Monin in behalf of his department, several of the flats were fitted out for class rooms and the Languages were invited to come under the roof of the Institute building. It was but a half loaf after all, that was offered us, for Prof. Monin and Miss Wright taught their respective classes in every room except the library and laboratories, while the German class was literally received under the roof, for the museum on the fifth floor served us as a class room. According to the language of Greece, museums were the homes of the muses. I am not sure that the muses are graciously inclined to the study of Elementary German, and according to the Greek acceptance of the word we were probably out of place there; but on the other hand, if the true significance of the word "museum" is best brought to our apprehension by an allusion to the ages which preceded its origin, when our ancestors were in the midst of those great migrations which peopled Europe, it was fitting that we who had been in a constant state of migration should finally find a permanent abode in a museum. What an incongruous environment! How often did the wandering glances of students illustrate Prof. Huxley's description of a museum as a "consultative library of objects," for they were generally "consulting" the South African collection of deadly weapons and feminine adornments when I fain would have them consult German prose. The prophetic eye of the class artist would linger lovingly on the huge nugget of gold, the size of which would put to shame the most exaggerated find of the Klondike; difficult indeed did he find the readjustment of his golden dreams to the realities of the modal auxiliary. Then there was that grotesque piece of furniture, the chair made of huge horns, which Dr. Gunsaulus invariably pointed out to the visitor as the "German Chair." After two years of varied experience and wanderings we finally settled down in conventional and orthodox quarters. But I shall always remember with peculiar gratitude the students who braved the winter's cold and the summer's heat on their way from the Institute to the mission building and the later classes who patiently submitted to the appellation of "German Freaks," given to them during their sojourn in the museum.

Very cordially yours,

Rosa C. Laug.

CHICAGO TELEPHONE CO.

Telephone Building, 203 Washington St.

CHICAGO,

"Early Recollections"

CHICAGO, ILL., Jan. 15th, 1898.

To the Editors of THE INTEGRAL *of '98:*

This may appear to be an odd term to use in connection with an institution which is not yet five years old, but to many of us, it seems perfectly applicable since in that time we have completed our college course.

In the early days of the Institute (it had not then added the last two words of the present official title), the Academy predominated. This was due to the fact that the Academy started with four classes, while the College had but one, the great and only class of '97. Consequently the glee club, foot ball team, and the other student organizations had but few college men among their members. Speaking of the foot ball team, "That reminds me," as John Brownell would say, "of the first time we tried to play foot ball."

Our first practice took place in the vacant lot just south of the Webster school, on Wentworth Ave. All of the "moochers," larger and small, from that part of the town, came to see what was up. In some unexplained manner they secured the ball, and in attempting to recover it, a scrimmage ensued, during which Val Hunt landed his good right fist in the immediate locality of the lower jaw of one of "de gang." The result of this was a shower of brick bats and other bats upon the gallant men of Old Armour. We finally held a conference with the enemy, with the result that they expressed their opinion in this manner: "Well, mebbe youse fellers is all right, but we wants de feller wot hit Dempsey."



However, they never secured Mr. "Man-Wot-Hit-Dempsey," and we afterward played foot ball in peace, if such a term is allowable in connection with the game.

We were active in other ways also. We had Library and Faculty receptions, "informals" and other social functions, and on the whole thought we were quite "warm."

We people in the class of '97, although only Freshmen, had, or thought we had, all of the dignity and prerogatives of seniors, as we were the only class in the college. The present Freshmen, with three classes to look down upon them, cannot appreciate how important we felt.

We used to go out to the Worlds Fair with the Profs. on inspection trips to the Electrical Building and Machinery Hall, but often the Midway or some other part of the grounds would seem to our youthful minds to be more attractive than flywheels, generators, and other inanimate objects.

If I were to continue telling of the many things that happened during the school year of '93 and '94, the Board of Editors would have to get out a heavier Annual than they can afford, so it will save them money if this article is brought to a speedy close.

Very truly yours,

WILL FARGO SIMS.

EDITOR'S NOTE.—Will the reader please read the letters of our two friends, Sloan and Sims, in parallel.

Chicago Telephone Co.

Engineering Dept.

CHICAGO, ILL., Oct. 23d, 1897.

THE BOARD OF EDITORS, INTEGRAL—

Gentlemen: In response to your inquiry, I would say that to the best of my recollections, about 65 per cent. of the original aggregation, whose roster began, "Apfel, Aspinwall, Burroughs, Blodgett, etc.," have broken connection with the class of '98.

A. O. Carpenter, one of our good all-around men of the mechanical persuasion, left school to accept a position with the Paige Iron Works, Chicago. He remained there about four months, when, through the agency of Mr. Dingey, he transferred his services to the Russell Engine Co., Massillon, Ohio. He left there about a year later in response to a proposition from the Johnson Switch and Signal Co., Johnstown, Pa. I lost track of him at this point.

Mr. Ewald left school at the close of his Freshman year, to engage in the manufacture of cycle fittings. He is now the head of the Ewald Manufacturing Co., devoted to the production of cycle fittings and high grade hardware specialties. He has twice doubled the capacity of his plant at 41–43 W. Washington street, Chicago, and now is able to utilize six thousand square feet of floor space, employing thirty-five men. He contemplates another extension in the near future.

W. S. Ferris, with headquarters at No. 1 W. Washington street, is city buyer for the Creamery Package Manufacturing Co., a concern enjoying an extensive trade in the Northwest.

H. E. Martin has a responsible position with the Armour Elevator Co., at 205 La Salle Street.

W. F. Sims, a graduate of '97, and myself, are employed by the Chicago Telephone Co., the local lessee of the American Bell Telephone Co., and we are both satisfied with our field of work. It is a great business. I recently inspected several of the exchanges operated by the New York Telephone Co. This company has seventeen thousand subscribers in New York City, and seventeen thousand in Westchester County. In addition to this, the New York and New Jersey Telephone Co. has enough subscribers in the immediate vicinity to make a total of nearly fifty thousand within a radius of thirty miles about Cortlandt, the principal exchange of New York City.

This locality has the largest telephone traffic of any point in the world. Strange to say, however, the traffic at this point is not as dense as it is in Chicago, for the Chicago "Main" exchange, with fewer lines than Cortlandt, has an average of 84,611 calls per day against 58,137 for Cortlandt.

The American people utilize the telephone, both for local and long distance work, much more than Europeans. To illustrate this I will mention a single fact.

The State of Massachusetts has 23,390 subscribers, making 2,500 calls per year per subscriber. In Europe, Switzerland furnished a parallel with 23,446 subscribers, the subscribers averaging but 530 calls per year. Thus the average Massachusetts subscriber uses his telephone nearly five times as much as the average subscribers in Switzerland.

These facts are interesting not alone to the telephone fraternity, but to students in general.

Thanking you that I may be permitted even this much space in the Souvenir Annual, I am

Sincerely yours,

JOHN M. HUMISTON, Ex. '98.

Anaconda Copper Mining Company

Water Works Department

ANACONDA, MONTANA, Feb. 1, 1898.

EDITORS '98 INTEGRAL:

I have been in Montana about three months and can say that I like the country very much. On my way out I stopped off at Jamestown, N. D., and visited with Mr. John A. Masters, whom you will remember as an ex-Armourite. He is now President of the Jamestown Electric Light and Power Co., and is doing very nicely.

My first work here was assisting in the engineering of the new Anaconda Water Works. At present I am engaged in draughting and arranging details of the long distance transmission between Anaconda and the mountains.

Anaconda is not such a small town, after all—about 15,000 inhabitants. It is named after the Anaconda Mine in Butte, which is owned by Hogan, Daily and the Rothchilds—the two former holding the controlling interest. The ore is mined in Butte and brought here on the Company's railroad, where it is smelted and partly refined, after which it is sent to Baltimore, where it is thoroughly refined. The cost of power here is so great that the ore cannot be thoroughly refined; this arrangement, however, will probably be changed when the Company has completed its present plans of developing the water power resources in the mountains.

I have taken quite a few trips up the mountains and will say that the scenery is grand.

A party of six started out one day on our ponies and rode about six miles to a ranch, where they are working a lime quarry. They treated us with true Western hospitality, and we saw everything, not excluding a good turkey dinner. We visited two extinct geysers where a large mound, about twenty-five feet high, almost conical in shape, has been built up from calcarious deposits of the spring. The well was full and the water luke warm.

One Sunday, a party of us went up to Lake Hearst, which is the supply for the reservoir. The ascent was a very novel and exciting experience, to me, at least. The mountains were covered with a dense forest of mountain pine, spruce and hemlock. The road wound its way through this wood, and often, as we came to a clearing, we saw, for miles down the valley, the snow-capped trees sparkling in the sun. We made the ascent, a distance of four miles to the lower camp on our pipe line from the lake to the reservoir, in about an hour. Here, we had a camp dinner, and perhaps it didn't taste good! After feeding the horses we started for the lake. The altitude there is about 8,500 feet above sea level and half a mile above Anaconda. We found some difficulty in breathing at such an altitude, and could hardly walk over the slightest hills. The following Sunday we took some girls out and they could hardly get over the novelty of the trip, for they had the honor of being the first ladies to enjoy festivities in the camp. All of the crowd were in fine spirits and the wit flew in seething torrents that kept us all in a constant state of hilarity.

In conclusion, I wish to say, that although this is the wildest part of the Wild West, yet, refined society is by no means lacking, and I find that the life of a young engineer, in the employ of the Anaconda Mining Co., is not half bad. Wishing you success, etc., I am

Yours very truly,

CHARLES T. MALCOLMSON.

Bike Statistics



Lady Bicyclists of the Institute

Weber Lanz

Crocker Dettelbach

Kuning Gross

Hushheimer Baer Boulton

Klein Cobb McLean

Sandmeyer Sieh Conly

Watt Holland Laniashue

Stanher Adams Goddard

Levine Spitz Durkee

Schonfeld Brush



Stern Crendeche

Hush Mayer

Keamer Hyman

Smith Collins

Kennedy Adler

Philipps Lindsay

Davenport, J. and L. Goldsmith

Cook Hartman Morrow

Mayco Higgie Boardman

Ford Richards Young

Boughton Malzacher Kines

Griswold Manning Turnley

Harris Kimball Siekman

Fowler Weinberg Fekenstat

Curtiss Wright

Van Vliet Adler

Bullard Stern

Reiners Theobald

Clark Hart

Wheelmen of the Institute

Turbin
Tourtelot
Palmer
McArthur
Whitaker
Raymond
Zuckemanns
Fisher
Garcelon
DeLap
Berd
Benedict
Tousley
Zimmerman
Hart
Bear
Brooks
Sanford
Hunter
Mayer, C. and H.
Wormser, M. and L.
Willis
Putnam
Andrews
Collins
Lander
Pattison
Grosswith
Bartholomae
Briggs
Scheidler
Felt
Colburn
Loftus
Thomson
Prof. Feldman
Howard
Deahn
Arnold
Starkweather
Shand
Leeper
Smith
MacClyment
Prof. Roney
Sackett
Rosenberger
Wilson
Fish
Allen, R. and T.

Meyer
Handele
Rhoten
Glidden, H. and J.
Levy
Hines
Hiller
Nichols
Larkin
Young
Edbrooke
Hindert
Raley
Brooke
Mallen
Weller
Griswold
Herrmann
Lefens
Gibbs
Harper
MacKenzie

Sorelle
Saxton
Schwab
Vaughan
Dyer
Van Hennon
Coy
Lindman
Feindt
Solomon
Dodge
Taylor
Hayden
Low
Hess
Harlan
Harbeck
Henderson
Blum
Jones
Bach
Blodgett
Flanders
White
Kappes
Cook
Beifeld
Spiegel
Weinsheimer
Philipsbona
Loewenthal, R. and P.
Leopold
Crawford
Maher
Huey
Houssman
Langworthy
Lewis
Ginster
Manheimer
Kloman
Snow
Bishop
Freeman
Prof. Kerr
Murray
Wasserstrass
Souther
Rimanoczy
Nagelstock



Wheels

The Columbia is ridden by eighteen students of Armour Institute of Technology.

The next most popular wheels are Fowler, Rambler, Iriquois, Napoleon, Thistle, Crescent, and March-Davis.

Other wheels seen in the racks are

Racycle Julian Imperial Victoria Victor Winton Acme

Monarch El Dorado Douglas Crown Derby Vernon

Road King Auditorium Pathfinder Commander

Czar Auburn May Hibbard Barnes Stearns Loomis

Defender King B Griswold Wabash Gendron

Windsor Grant Josephine Rialto Keystone Waverly

Duquesne Davidson

Czarina Arena

Indiana Ide

Ideal America

Sovereign Temple

Diamond Elks

Bostedo White City



Field Specials World Calumet Sidney Trinity

Orient Liberty Peerless Elkhart Phoenix

Remington Alpine Standard Hummer

Clipper Sterling Kearney

Fanning Paris Falcon Andrae Yale

Count United States Mercury Cleveland Dodson

Richardson Relay Gladiator Saranac Featherstone

Elgin King American Flyer

Henrietta Common

Isabel D. Bullard



A Tribute to the Domestic Science Departments

Emogene L. Kennedy

Florence E. Kennedy

A Trip to Bering Sea

EARLY in the summer of 1897 a Government survey party, under Will Ward Duffield, Assistant Chief of the Coast and Geodetic Survey, was sent to the Pribilof or Seal Islands.

The object of this expedition was to make a complete topographical and geographical survey of the four islands comprising the Pribilof Group. Of this party H. J. Slaker and C. H. Roesch, of the class of '98, A. I. T., became members. On May 5th the party, eleven in all, boarded the revenue cutter "Bear," and at sun-down were slowly steaming out of Puget Sound.

After coaling up at Departure Bay, Vancouver Island, and stopping a short time at Victoria and Port Townsend, the boat headed for the open Pacific.

The "Bear," the same boat that rescued Greeley in 1883, is a staunch sea-boat admirably fitted for heavy work in the ice fields in the Artic Ocean. The morning of the 11th found us *slightly* under the weather, due to what is sometimes called mal-de-mer, but in plain English, sea-sickness! For several days we managed to take small quantities of beef-tea or something equally light, if only for a few moments. Even the sailors attempted to sympathize with us.

On the 18th of May the Shumagin Islands were sighted and at noon the boat anchored opposite Unga, an island in the Aleutian Peninsula. At this place we had the opportunity of visiting a large gold mine, one of the few quartz mines that are in operation in Alaska at the present time.

Unalaska and Dutch Harbor were reached on the 20th after passing through a long chain of picturesque islands. Astronomical observations were taken at Unalaska and then on the 22d the "Bear" steamed out into Bering Sea. By 8 o'clock the next morning the Islands were reached, but we were compelled to wait forty-eight hours for a favorable landing.

An immense native skin-boat (bidarrah) at last appeared, manned by twelve Aleuts, who proceeded at once to land our instruments and baggage.

The Pribilof Group lies about 200 miles north of the Aleutian Islands and consists of four islands, St. Paul, St. George, Otter and Walrus, the latter two being considerably smaller than the others and uninhabited. They are of volcanic formation, some of the craters, especially the one on Otter Island and several on St. Paul, being very distinct and regular in form.

The Russians under Pribilof made the first settlement on the Islands in 1786, but they did not assume absolute control of the sealing business until 1799. In the Alaskan purchase, 1870, the Islands with the seals were turned over to the United States. Since 1870 the natives have been taken care of and lead a freer life, quite in contrast to their servile life under the Russians. They were originally Aleutians, but having so long intermingled with other races they seemed to have characteristics belonging to all races from the Negro up to the Caucasian.

The inhabitants of the islands are entirely shut off from civilization for seven months of the year. It was no wonder then that we were astonished at their eagerness for news. The two prevailing questions were as to who was elected president and how the prize fight resulted or rather, in the reverse order.

During the five months that were spent on the islands, opportunity was taken to make a study of the fur-seal. Very little is known of the movements of this animal during the winter months but every summer the herd returns to these islands.

The male seals are the first arrivals in the spring and an interesting sight it is to see the sleek-looking animals struggle for their favorite positions among the rocks. While on the rookeries or breeding grounds the male seal never leaves his position for food during the entire season of three or four months. The female (cow) seal begins to arrive in June and is much smaller and more graceful.

After the birth of the pups, the cows go out to sea for food. It is while on these trips after food that so many cows are killed by the pelagic sealers. In the meanwhile the poor


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little pups are calling for their mothers and gradually starving to death. In 1896, 16,000 pups were starved on St. George and St. Paul Islands.

Under the supervision of a government officer, only males, two and three years old, are allowed to be killed. This plan has steadily increased the herd until about 1883 when the pelagic sealers began to kill the seals indiscriminately.

The young male seals (holostiak), from which the annual quota of skins are obtained, gather in places entirely separate from the breeding grounds. The drives are made during the months of July and August. Early in the morning several natives slip quietly in between the seals and the sea shore. Then it is an easy task to drive them to the nearest killing-grounds, where the eligible seals are despatched. The skull is so thin that a sharp blow with a hard-wood club is sufficient to kill them. The pelts are then removed by the native skinners, who are remarkably quick and sure in their work.

The sea-lion also visits these islands annually. While the meat of the fur-seal furnishes a supply of food for the natives, the various parts of the sea-lion are put to uses that are somewhat peculiar. The skins are deftly sewed together and made into boats, bidarrahs as they are called. The throats of the sea-lion are distended, cleaned and allowed to dry. Then they are used as boot-tops, the soles being made of the flippers. The intestines are treated similiarly and sewed into rain-garments (kamlickas). The stomach walls, when distended and dried, serve to hold dried seal-meat, to be used during the winter.

Vast numbers of sea-fowl—auks, arries, parrots, gulls, etc., build their nests every year on the cliffs surrounding the islands. Walrus Island, which is merely a large basaltic rock, was literally covered with these birds and their eggs.

The "Bear" returned from the North about the middle of October and by the 25th we were on our way homeward. Seattle was safely reached, November 9th, after an uneventful voyage across the Pacific.

"Unsubstantial as a dream
Does my lone Mist-Island seem,
With its flower-bespangled moss.
Wet by wayward waves that toss
Flotsam from the farthest lands
Over Zoltoi's shining sands,
While the mist still broods above;
Sleep-cap of the Pribilof!"

CHAS. H. ROESCH.

Explanation of Views

No. 1. Killing-scene on St. Paul Island, June 23d. Out of the 1,200 seals driven that morning, over 700 were killed. The others were allowed to return to the sea.

No. 2. Killing-scene on St. George Island late in October. Several hundred seals were killed for food; the native-women cut the meat into strips, and allowed it to dry in the open air. Then it was packed in the stomach walls of the sea-lions.

No. 3. The native-skinners are very quick and dexterous in the use of the skinning knife. The usual time taken to remove a pelt is from one to two minutes.

No. 4. This picture shows the landing at St. George Island, with the village to the right.

No. 5. A native family. The characteristic features of the native, as can be seen in the picture, are the small, wide-set eyes, high cheek-bones, straight black hair and brownish-yellow complexion.

No. 6. St. Paul Village.

No. 7. The greater part of the shore-line of the islands is of such basaltic formation as shown in the picture. By long continued action of the waves and the ice in the winter, large blocks of lava are loosened and gradually rounded into boulders.

No. 8. The male seal generally weigh from 600 to 700 pounds, and are remarkably quick in their movements. They can travel over the rocks very fast, but only for a short distance.

No. 9. A view of the harbor and the two villages Unalaska and Dutch Harbor in the Aleutian Peninsula. Unalaska is the headquarters of the revenue cutter fleet in the summer.

No. 10. The sea-lions, several thousands of which visit the Pribilofs each year, are immense creatures, of a tawny, yellowish color and weighing about 1,200 to 2,000 pounds. Their skin is worthless except for use in making the native boats (bidarrahs).

No. 11. Apollon Bowedurfsky, one of the more intelligent natives, was formerly the chief.

No. 12. Bering Sea is almost continually covered with banks of heavy fog. The rainy-day suits used by the party were little used, as the weather was exceptionally good during the summer. The temperature ranged from 40 to 55 degrees.

No. 13. The survey-party.

No. 14. The revenue-cutter fleet consists of five boats very much like the "Bear." They are comparatively small boats and can roll and pitch at the least provocation, as we soon noticed.



He — Did you see the foot-ball game?
She — No. I went, but after one of them kicked the ball they all got into a terrible wrangle and I just left.



ONE evening after supper I sat down to enjoy a quiet hour or two, and, in some unaccountable way, I began to think. I soon realized the dangers of such a proceeding—brain fever, fits, loss of hair, and the like—and immediately concluded that if I wished to maintain my dignified appearance and thus establish a credit for wisdom and profundity, I must quit. I, therefore, concluded to let my massive intellect have a mental picnic—to gambol and frolic on the green swards of the future, and wander pensively over the close-cropped meadows of the past.

It looked pretty green ahead—rather brown behind. I began to wonder how it would be ten years from now. In my mental wanderings I soon found myself sitting in a comfortable parlor reading the evening paper. A little fellow comes and leans on my knee.

"Daddy! What's 'lectricity?"

"Electricity! Oh, that's—why, why that's—eh; ask your mother over there."

Mother extends a vote of thanks, and displays a discretion in attempting the definition that would have been very acceptable in a good many writers on the subject.

I forgot to take up my paper. The child's question had started me to wondering what had become of that class of young men who, in '93, had started in at Armour Institute on a four years' course in order that they might be able to answer that very question. It called to mind a remark that was made during the first month of that course:

"Young men, when you are asked, 'What is electricity?' you can very properly answer, 'I don't know.' But before this course is ended we hope you may be able to add, 'But I do know some of the things that it does.'" Thus I found myself wandering over the past. I thought of the goats that got in among the sheep, and I wondered if I was a goat or a sheep.

I wondered what had become of that bright galaxy of stars that constituted the first class—a galaxy like most galaxies, that has had hard work to muster up even a twinkle since.

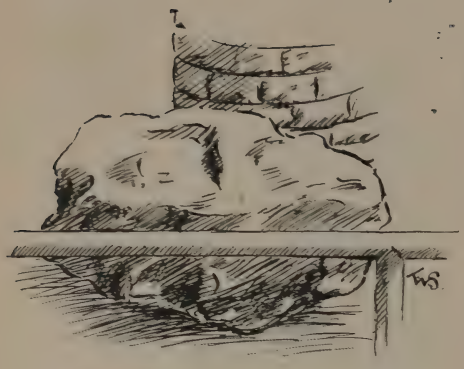
I began to browse over the brown meadows of the past—here and there finding a spot untouched—an opportunity missed.

"Why," I thought to myself, "even a goat could have seen that."

But hind sight is much clearer than foresight. Opportunities missed stand out very prominently when the rest have been taken.

Here and there I saw a hole in the fence where some member had gone through and wandered off—into matrimony, green fields, tall clover. I ran across a big examination rock that a goat once butted up against and then died. Poor fellow! Peace be to his papers. I found the place where the whole flock took a run and jumped over the fence one day. I saw the tall grass in which we frisked and gamboled for a few days just before being led out through the big gate into the woods and told to scatter. Scatter we did—briars, bushes and tall trees. Here and there you could hear a plaintive bleat that came from farther and farther on, and finally ceased.

At this juncture I was called back "to earth" by the heroic struggle of my room-mate with what seemed imminent death by strangulation, caused by the sticking of an unusually large snore. My reverie made me feel sheepish. I concluded to retire, and went to sleep, wondering if it were possible for a goat to feel sheepish.



The Rock

TO Armour Students, many of whom have passed by the large stone lying on the Campus across the street from the Institute, it might be interesting to know that the stone is nickel-bearing and the largest specimen known to have been taken from the mine and transported. Its weight is nearly two tons. It was sent to the World's Fair, where it formed a part of the exhibit of the Canadian Copper Co., of Sudsbury, Ontario, Canada. which firm presented it to the Armour Institute of Technology at the close of the Fair.

Sudsbury supplies nearly all of the nickel used throughout the world, excepting that which is mined by the convicts of the French Penal Colony. The ore at Sudsbury is converted into a mass composed of nickel, sulphur, etc., which is shipped to the United States or Europe and refined, metallic nickel being thus obtained. Assayists tell us that aside from the nickel-bearing properties of this rock, it contains about eight hundred dollars' worth of gold.





The seals which occupy the case on the fourth floor were captured in the North Atlantic by Capt. J. A. Farquhar, of Halifax, N. S., who, during a cruise of nineteen days early in 1897, captured 15,102 seals. His original gift to the Institute consists of an entire family—male, cow and two pups—but the male was damaged in shipping and rendered unfit for stuffing, so that it will not be until after this year's expedition that our seal family will be complete. These seals belong to the Phoca genus, sometimes called the Harp seal. The male is a magnificent animal, about one-fourth larger in size than the female.


TRUTH
AND
FICTION

The Blight of the Morning Glories



THE Morning Glories had challenged the Four O'Clocks to a game of base-ball for the inter-class championship honors. The challenge being promptly accepted, captains were chosen, and the first great work of the year was begun. Every man made a firm resolve to do or "bust"—some did, the rest busted.

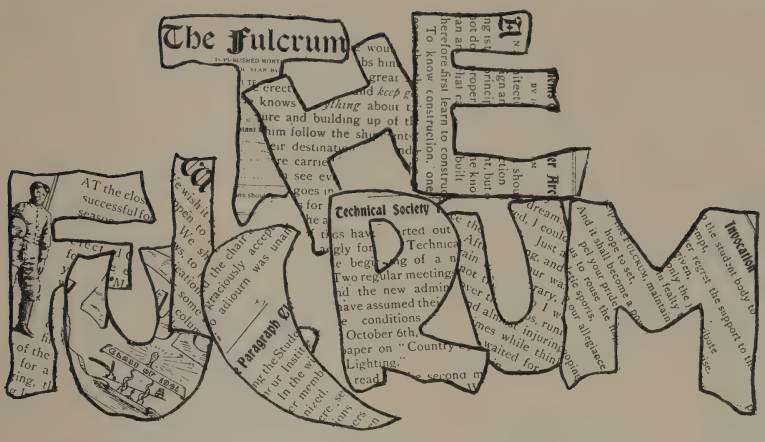
The preliminaries had been arranged, the important day arrived, the two classes with as many others as could find an opportunity to skip, hied themselves away to Washington Park in eager anticipation of the coming affray. What a motley crowd of "celebrities" there were present! No pen could do them justice. There was Tarbell, the crack(ed) athelete; White, the ossified man (sometimes called "Indian"); Sidney Swenson, otherwise known as "Gus" (the man who could short circuit more standard cells in a minute than any other man living); John O'Leary, the frankfurt; Billie Matthews, the Ham (generally known as Tim); Porter, the only lady in the class; Bippus, the prettiest boy in four counties; Gordon (the only ball player in the crowd); Lee, leader of the light horse cavalry; Shubart, the man who, when finding no one else to dispute with, steps on his own toes and hollers, "Get off!"; and others too numerous to mention but none the less prominent.

Umpires were chosen, and to the important task of score-keeper was assigned Montchyk of "Why do you laugh, say?" fame.

The game was started and oh, Lord! what a wonderful piece of work it proved to be. The pitcher on the "Morning Glory" trellis kept the batters jumping sideways, in fact, they went through the whole delsarte movement to avoid being grazed, while the umpire, seeming to have forgotten his native tongue, and to have found but a small fragment of the American food-mixer, yelled "strike," "foul," "ball," all in one breath, the batter thought that he was to "strike at a foul ball" and, ye Gods! how he struck. The catcher had seven fleet backers who fell over each other in their eager attempts to stop the ball, but the ball continued on its course to the bushes. Lee, out in center-field, ran around after oncoming balls with outstretched hands as though in suppliance to Heaven. Lewis, having properly focussed himself in anticipation of a hot grounder, carefully placed his lily white knees together and allowed the ball to glide gently on, between his feet, then slowly coming to the conclusion that someone had blundered, he turned nimbly 'round and started after it, as though he was going to take an examination in Mechanics. Having finally captured it and stowed it safely away in his pocket, he brought it in to home in person, and deposited it with the score keeper. Having thus exonorated his balk in the field, he marched slowly back to new conquests as proud as a little boy who has learned to spell "a." Meanwhile, no delay had been occasioned to the game, Tarbell had had a round with the umpire who refused to recognize the former's Vermont curves as legitimate strikes. Shubart was tearing up and down the line declaring vengeance on the man who had declared him out; Goodhue rolled around in boyish glee; Pavey, finding foot-power too slow, rode his wheel to third on a three bagger, and so the game continued until Heaven, in mercy, drew a veil of darkness over all the land.

Late at night the Morning Glories were slowly pursuing their homeward ways, with heads sunk deeply on their respective and several breasts, even as Napoleon after his defeat at Waterloo.

Score:—22 to 21 in favor of the Four O'Clocks.



Vol. I. Chicago, Ill., February 29, 1898. No. 13.

General Hustlers and Proof Readers

T. W. STEVENS - - - - R. T. RALEY
Artists - - - R. T. RALEY, T. W. STEVENS
Chief Scissors Man - - - - W. I. LEWIS
Head Boodle Man - - A. G. LANGWORTHY

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Personals.
Little Ads.
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Page 3—Alumni Notes and Receipts for the Meals of the Week.
Page 4—Society Gossip and Commencement Styles.
Pages 5 to 20—Stories of the Alleys of the Town.

Little Ads

To all those WHO RENEW THEIR SUBSCRIPTIONS AT ONCE

the management will present a life sized wood cut engraving of the B. M.

Theses written at half rates during Easter vacation. —Z 894, care this office.

Girl wanted — must be young and handsome. —Burr.

A choice assortment of signs constantly on hand. Inquire of Green and Terry.

A new lot of intelligence just received. Apply at office.

Editorials

HOORAY for the FULCRUM! Hooray for The INTEGRAL! Let the college rejoice and the Daughters of ye Academy be glad.

BE it understood this early in our history that this paper does not owe its success to an undivided class support. We have "hangers on"—they attempt to get in the front row in our class pictures—for the first three years of their college course they will watch us, to judge of the propriety of joining the regular organization for their Senior years—but we want no such members and poor fellows, they will so discover the fact in 1900.

Summer Work

"Father hasn't decided yet."—WEINSHEIMER.

"Take pictures in the Klondike."—RIMANOCZY.

.....EDITORS DE FULCRUM.

"Edit. Electrical Department of the Police Gazette."—GORDON.

"Try and regain our lost health."—ROESCH AND SLAKER.

"Study electricity that I may pass civil service examination for City Inspector."—BLODGETT.

"Stay up North with the girls."—PATTEN.

Personals

Slaker and Roesch '98, will deliver their lecture, "In the footprints of Nansen" by request before the members of the Sewing Classes on Thursday eve. next.

Messrs Tarbell and Morse may be seen eating lunch at "The Skyrocket" on almost any fine day.

Mr. Colby continues his original investigations on the Law of Divided Circuits. He has now been at work for three months on this point and hopes to prove it satisfactorily to himself by May.

Poetry

"Why don't you like me any more?"
He said in tones enraging;
"Because," she answered with a pout,
"Your talk is not engaging." —*Ex.*





DES MOULINS leaned back in his chair and waited. It was already past the hour and She had not arrived. The golden sun poured in through the open widow and filled the little studio with fantastic light. It caught the brilliant hues of an Eastern drapery at the end of the room, and the reflected beams threw a warm, rich color on the face upon an easel, transforming it into tender life.

The artist looked at the painting, and a strange light came into his eyes. Was it really six weeks since first he met Her?

Yes,—for then the air was heavy with the perfume of June roses, and now the reapers were harvesting the ripened grain. Six weeks of golden, summer weather—of perfect days and moonlight nights; weeks in which he had watched that glorious face grow upon the canvas, prolonging the work as much as possible until now but two days remained, and then all would be over!

Would it?

He started up, murmuring as his eyes met the painted ones before him—

"Never—until eternity—sweet-heart!"

The soft swish of a woman's gown upon the stair, the little impatient rattle of the door-knob, the delicate perfume of old-fashioned roses, and She stood behind him.

"Were you waiting for me? Am I awfully late? Is it not warm? Won't you begin, please; I'm sorry I—Oh," coming to a sudden stop before the painting, "it is finished! But it is far too lovely for me." Then, with quick reproach, "Why did you not tell me that it was finished?"

Des Moulins threw away his cigarette and began to wash his brushes, taking care to stand where he could watch Her, as he worked.

"It is not quite done yet," he replied. "I have some last touches to add. They always take a long time."

"Do they?" She asked with innocent wonder, and an evident desire to learn. "Longer than the first ones?"

"Oh, far longer," answered Des Moulins, anxiously washing a new brush.

"Then it will never be finished," She said calmly. Their eyes met, and both laughed merrily, for it was summer and they were young.

"Do you know," She said, standing with her head half turned, critically examining the painting, "They say I am a Gibson girl."

"Ah! said Des Moulins, "they are quite wrong. If Mr. Gibson saw you there would be—" He paused.

"What?"

"A new Gibson girl," he added.

She sat down and threw her hat and cloak on a chair near. "I am ready, please begin."

"In one moment," said the artist. He went into an adjoining room and returned with a great mass of crimson roses.

"Oh! *magnifique*!" he exclaimed, as he placed them in her lap. "Now I shall paint them so, and call my picture 'American Beauties,' and when I return home it will hang in the Salon, and all Paris will say: "If those are American Beauties let us go to America at once."

Her cheeks took on the color of the roses, and then, smiling at him as he commenced painting, She stared idly through the window across the green fields to the waving wheat beyond.

A moment later, Des Moulins threw down his brushes in despair.

"Don't look like that. If you do I cannot paint you. No artist could find such color as you have, and your eyes—" He paused abruptly.

But She only laughed merrily and leaned toward him, mischief in every curve and dimple of her tender face. "How shall I look?" she asked. "Shall I —"

Suddenly her smile faded, her eyes grew dark with feeling, and her sensitive lips quivered like rose leaves stirred by the wind.

"I must go," She murmured. "It is late; you can finish without me."

Des Moulins did not seek to detain Her, but rose as she put on her hat.

"Yes," he said, "I can paint without you—until tomorrow."

"But you could finish it alone, could you not?" She repeated earnestly, her eyes intent on his.

Des Moulins scarcely understanding, answered lightly: "*Mais oui, Mademoiselle.*" She turned, and picking up a rose, said with still that strange little smile: "'Here's a rose, and that's for remembrance.' You see I am misquoting." She laid her hand and the rose in his. "Do not forget me," She said. "Good bye."

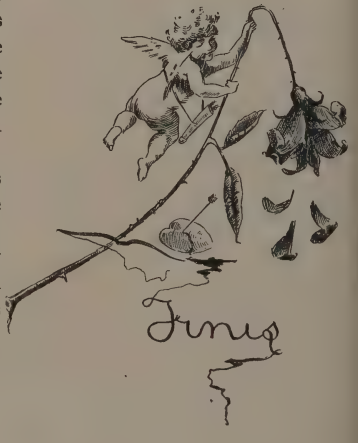
The next moment Des Moulins was alone, and the rose lay in his hand. He lit a cigarette and sat down before the picture. The perfect face was still lighted up by the last rays of the dying sun.

"To-morrow I will tell Her. She knows it, but to-morrow I will tell Her, and She will lay her little hands in mine and smile."

The painted eyes and lips smiled back at him. He could almost see the little dimple in her cheek.

There was a sudden noise in the stairway, and a friend stumbled in.

"Confound it, old fellow, why do you have your studio away off here? Nearly broke my neck on those stairs. I just dropped in to tell you that the train leaves to-morrow at 6:40. Be sure and come, the boys expect you, and the trap will be sent to the train for you; you have been buried in this hole long enough. Hello! Who's this? By Jove! a picture of Her! I suppose you did it for Anthony. You know he came down suddenly to-day from New York, and they are to be married to-morrow. Unexpected business—called to Europe—wants his bride with him. They sail the 27th. Just like his luck, falls in for a mint of money and gets the prettiest girl in the land. Well, old fellow, must leave you. Don't fail us to-morrow. *Au revoir.*"



Des Moulins sat staring at the picture. The rose lay fading in his hand. Its perfume stifled him. "Married to-morrow." Outside the window a bird sang merrily to its mate. A tiny black cricket chirped on the window ledge.

"And the reapers reaped,
And the sun fell,
And all the land was dark."



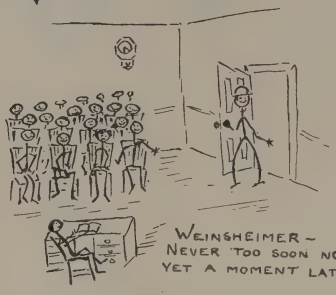
ART INSTITUTE

ARCHITECTURAL DEPARTMENT ARMOUR INSTITUTE OF TECHNOLOGY

A.I.T.



LEEPER – DOING THE MILE IN 10-40



WEINSHEIMER – NEVER TOO SOON NOR YET A MOMENT LATE.



MACKENZIE – THE GIGANTIC SCOT DANCING TO THE MERRY TUNE OF "BONNIE THA HUT."



HINDERT – AFTER ONE OF ARMOUR'S SNAPPY GAMES.

SENIORS



FLANDERS – THE M.E. REMNANT.



BLODGETT – FOLLOWING HIS ANCESTRAL VOCATION.



MACCLYMENT – AT HIS SELF-SACRIFICING LABORS.



KAPPES – ACCEPTS ALL CHANCES ON THIRD.



GAY – DISCOVERS SEVERAL NEW THINGS IN THE ASTRONOMICAL LINE.





NAGELSTOCK – OH! WHERE IS HEINEMANSKI?

98



PATTEN – RETURNS WITH ANOTHER GROSS OF DYSPEPSIA CURE.



SNIDE TALKS

By Ash Rutmore.

ANXIOUS INQUIRER—It is not considered good taste to be run over by a trolley car.

* * *

FRESHMAN—You win the bet! The Mammoth Cave is quite hollow.

* * *

MISS EVANSTON—Beer is a favorite brand of paint much used by youths of culture and refinement in imparting a vermilion hue to the city.

* * *

OUTSIDER—The Senate and Technical Societies are branches of the Athletic Association and all debates and speeches are conducted according to Queensbury Rules.

* * *

'01—Red neckties are not always becoming. Crease your trousers about nine and one-half inches above the knees.

* * *

WEST SIDE YOUNG LADY—Yes, there is one of the Terry family at Armour. His health is not very good and there is a chance for a romantic maid.

* * *

SUPT. SING SING—As to your question concerning a voltage fatal in every instance, would say that there is no recorded instance of a foot-ball player ever being shocked to death. We doubt if an operator could get near enough to a really fatal current to numb the said Knight of the Gridiron.

* * *

CONSTANT READER—Mr. MacKenzie desires that we convey his heartiest thanks to you for your kindness in notifying the E. E. Department of the need of an electrician and locksmith at The Transit House. He thinks he will accept the position immediately after getting his marks for this term's work.

* * *

FOND PARENT—Your dear letter cheered me much last week. You wisely remark that "boys will be boys," but they will be men unless the wrath of the gods lights upon them, and then they will be mug-wumps.

* * *

N. B.—I desire to state in this issue that Messrs. Neeves and Apfel are the only Ex-Armour men to seek life-partners.

* * *

MEMBER FACULTY—I have searched much for the author of the poetry you send, but can not help you as yet. I will add the lines, hoping that some of my readers can help you:

In a dense scrimmage crashed,
Each his opponent smashed,
Head against head was dashed,
Battered and thundered.
Great was the bucking there,
Great was the loss of hair,
Many a muttered prayer,
Fully a hundred.


CLASS ROOM POETRY



FREEMAN & HIS SUNFLOWER

Anent Mr. Freeman, C. E.,
Brought up 'neath the sunflower tree,
The clubs he can swing, to the banjo can sing,
And a clear-headed talker is he.

A "B. S." and "M. S." degree,
From Tech. a "B. S." and "E. E."
And how many more has the future in store
Cannot be computed by me.



H! Nina, I've a notion that
You would'nt think me true,
In spite of all the times
I've sworn fidelity to you.

If you could see how I make love,
In my impassioned way,
To such a pretty State Street girl,
And do it every day.

But, Nina, it's not fickleness
That makes me seem untrue,
I still affirm my heart belongs
Entirely to you.

She's waitress at our table, and
I worship at her feet,
Because I know that if I don't
I'll get cold things to eat.

—H. L.

Our Dear Alumni

A kindly youth of mustache fame
Was Church—with sweetly, fitting name;
A pious lad, his gentle rule
Promoted splendid work in school.

Young Malcolmson, petite and slim,
No candle could be held to him;
His art endeared him to his class,
But dearer to him is—a lass.

A man of divers social whims
Was our ever youthful Billy Sims;
A Field-day orator of note,
A standard bearer in his boat.

The masher of the smooth array
Was Richard Sloan, of garments gay;
He now is Pullman's right-hand man,
And does the "dead head" all he can.

Herein you'll find a story sweet,
The scene is laid on Armour street;
Pretty girl, slender waist,
Temptations great 'tis soon embraced;
Enter Father, sees 'em kiss,
Exit "Tech," something like THIS.

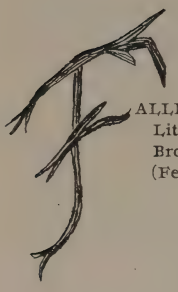
Little Jack Horner sat in a corner,
And there he'd study and sigh,
He turned to his crony and called for a "pony,"
And said, "what a great boy am I!"

50 Years Ago

No theory of germs to chill
Affections' budding blisses,
When ardent lovers took their fill,
No microbes in their kisses;
How happy they were not to know
The germ fad—50 years ago.



At Christmastide



FALLING snow-flakes—lovely sight;
Little wanderer in the night,
Brown-eyed, hungry, thinly dressed,
(Female subject is the best.)

Rich man; servants at his beck,
Full of turkey to the neck;
Stately mansion, brilliant glare,
Naught but joy and pleasure there.
Rippling laughter, beaming smile,
Snow keeps falling all the while.

Little wanderer on the stoop,
Slightly threatened with the croup;
Haughty servant orders off,
Faintly answers with a cough;
Master comes and views the scene;
"Heavens! like lost Gwendoline!"

"That's my name," the child replies,
"I am told I've Mother's eyes."
Brought in swiftly from the dark,
Golden locket, berry mark;
"Little darling, have no fear
For you've found your Grand-pa, dear!"
Bells a pealing, "Glory! Glory!"
There's the standard Christmas story.

—C. ENQUIRER.

"Oh, maiden, can you twang the lyre?"
I asked. She made reply:
"I do not twang, but I am great
On making apple pie."

"Oh, maiden, can you sing?" I asked.
"No, not a note," she said;
"But I can make doughnuts and bake
The lightest kind of bread."

"Oh, maiden, what's your pedigree?"
I asked; and she returned:
"No ancestor of mine e'er ate
A cookie that was burned."

I asked her to become my wife;
My heart and hand she took,
And I laugh to scorn the person who
Complains about his cook.

—C. L.





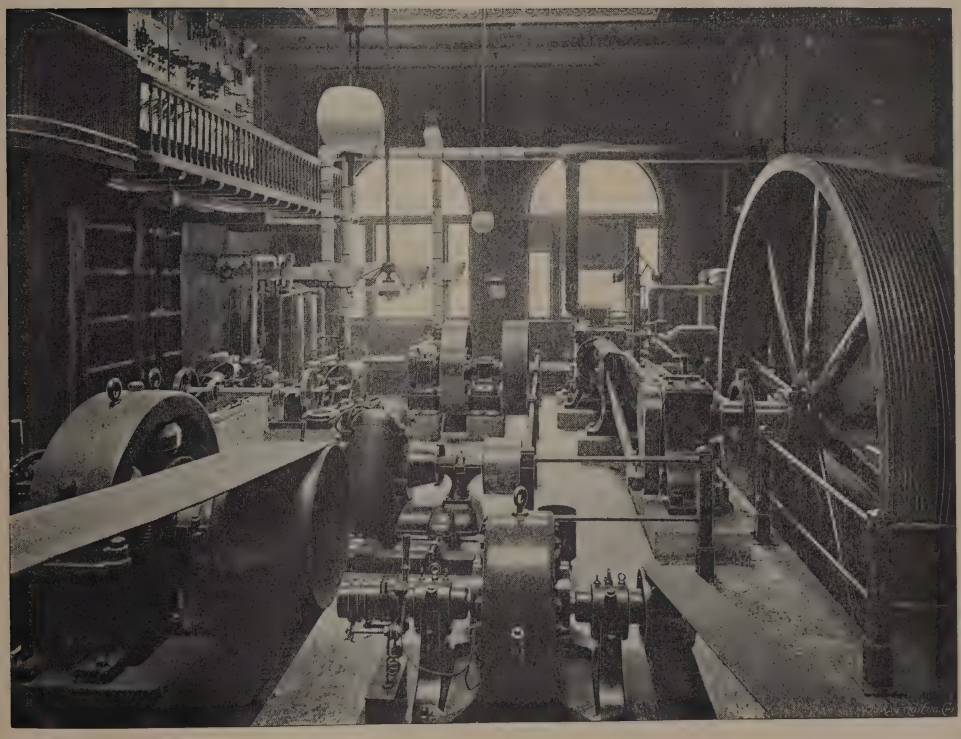
Cooking According to Science

Give me a spoon of oleo, ma,
And the sodium alkali,
For I'm going to bake a pie, mamma,
I'm going to bake a pie.
For John will be hungry and tired, ma,
And his tissues will decompose;
So give me a gramme of phosphate,
And the carbon and cellulose.

Now give me a chunk of casine, ma,
To shorten the thermic fat;
And hand me the oxygen bottle, ma,
And look at the thermostat;
And if the electric oven's cold
Just turn it on half an ohm,
For I want to have supper ready
As soon as John comes home.

Now pass me the neutral dope, mamma,
And rotate the mixing machine,
But give me the sterilized water, first,
And the oleomargarine,
And the phosphate, too, for, now I think,
The new typewriter's quit,
And John will need more phosphate food
To help his brain a bit.

—N. E. M.



ENGINE ROOM—ARMOUR INSTITUTE OF TECHNOLOGY

To the Comet



OH, how can we let this Annual go to press without a word for thee?
We need no Yerkes telescope to find thee, when the blazing sun
Proclaims the noonday hour.
We often think of thee all day, oh generous Comet!
Nourisher of our various nightmares, that, through thy administration
Often make the fastest time on record;
No stories told about thy wondrous namesake are tougher than thy steaks,
Namely, how one day it will descend upon us and destroy the life
That thou would'st save.
Strange, they should have named a thing like that for thee!
Thou art a star, a peach, or anything we like,
Who never will or can
Destroy our raging, knawing appetite.





A Story

CHAPTER I

Foolish man,
Sprightly miss,
Met by chance—
Both kiss.

CHAPTER II

Preacher speaks,
Few words said;
Man and miss,
They are wed.

CHAPTER III

Stern judge;
(Man is meek)—
Consents to pay her
Ten a week.

N. J.

Annie Laurie Jr.

Maxwelton's braes are bonny,
And Annie Laurie likes
Something that is softer
Than asphalt when she bikes.

Her spine is like the crescent,
And she's very rubber-necked;
Her face—oh, well, regarding that,
It's what you might expect.

She wears a nobby shirt-waist
And a little golfing hat,
And—would it not be better
To let it go at that?

D. J.

"Mother, may I go play football?"
"Yes, my darling sonny;
Leave your arms and ribs at home,
And don't you bet your money."

H. B.

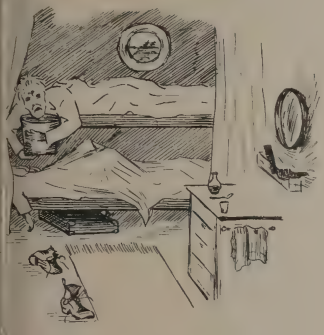
I sipped the nectar of those lips,
As in the gloaming there we sat.
Did ever mortal man before
Imbibe from such a mug as that?

D. J.

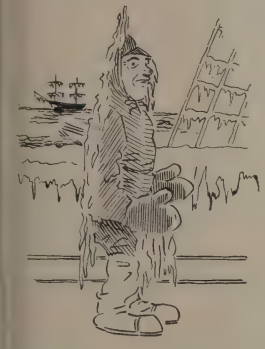


"A Search for the Pole"

BEING EXTRACTS FROM THE DIARY OF OUR ARCTIC EXPLORERS, ROESCH AND SLAKER

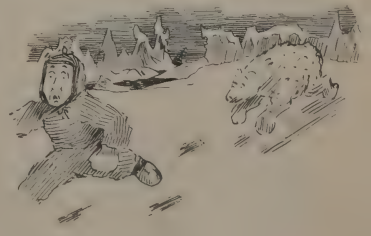


April 28th.—Washed my face for the last time—in Chicago. April 31st.—Wish I was back in Aurora! Guess I'll find my prayer book. May 5th.—Leaving Seattle. The "Bear" seems steady. We are old salts! May 9th.—Able to grasp a pen. Will be a man again in a week, with care. May 10th.—Laughed out loud—first time in five days. Scene, at the rail; time, 8 p.m. R. "Has the moon come up yet?" S. "Yes, if I've swallowed it." May 18th.—Sighted our new abode, St. Johns. Can see several natives on shore. Don't know whether they are cannibals or not. May 20th.—Had an excellent rubber boot steak to day. May 21st.—Have now been in my sweater for eight days and nights. May 22d.—Have been elected captain of the "Polar Stars" foot ball team. May 23d.—Life is quite joyous. Started in on our second barrel of blubber this morning. May have to go to work next week. Bought a piece of the North Pole to-day. May 30th.—Begin work in the a. m. Have been studying the multiplication tables. June 10th—Working every day. Walk twenty-four miles per diem. Eat every two hours. June 31st.—Klondike expedition wrecked on our coast last night. Noticed several Class of '97 men among the refugees. July 4th.—Celebrated with grand bear hunt. Came back to town in a hurry—for more cartridges. August 3d.—News from home; letter from Hindert, which is now being translated over at the office. August 16th.—Dreamt I had my five sweaters off last night. The shock was almost fatal. September 21st.—Had extra rations of axle-grease to-day; good, of course, but not quite mellow enough. September 30th.—Clark Street Dime Museum agent at our mansion to-day, trying to engage us for life. October 9th—Wish Nansen or somebody would rescue us. November 16th.—Back in Chicago! Will answer Nansen's lecture next term. He's not the whole push.









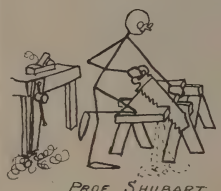
OUR JUNIORS.



WHITE AND BIPPUS



ELLIOTT, HANAI, ROOS, LEWIS
A QUIET GAME.



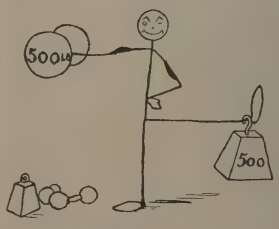
PROF. SHUBART.



GOODHUE AND HIS ESSAY.



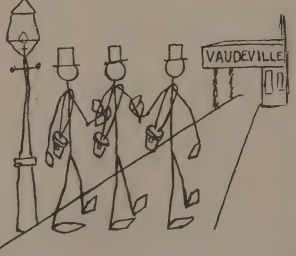
LEE
"Open wide your window—eh."



WARREN,
THE STRONG MAN.



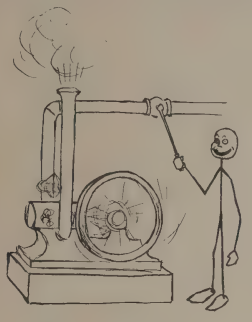
TARBELL,
BASSO PROFUNDO.



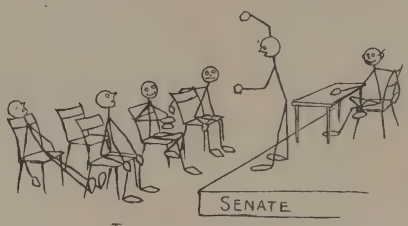
BURR, TWITCHELL AND RIMANOCZY.



RANSOM, THE MAHLER
(INSIDE.)



HUEY'S GAS ENGINE.
AT LAST ! (?)



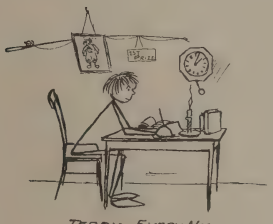
JOHNSON ORATING.
ALSO GORDON, LYMAN, STARKWEATHER, PORTER AND MATTHEWS ON VIEW.



CAPT. FIDDYMENT
AND THE "JOLLY SAM of LOCKPORT"



♡ BEATTYS. ♡



TERRY, EVERY NIGHT.



EXPERIMENTS IN THE ELECTRICAL LAB.
COREY, OLSON, SCHROEDER, WILHOIT & DEAN.



DR. MORSE.



POWERS AND MARIENTHAL
ARCHITECTS —



Love-Charmed



limbing up the grey old wall
Toward her window-arches tall,
Honeysuckles red and gold
With ascending rapture told
How my loved one's sun-bright hair
Rippled in the dreamy air.
O, could any flower withhold
Climbing upward toward the gold?

Rootlets sieze the wall so grey—
Honeysuckles on their way,
Longing for her love-lit eyes
Filled with lights of paradise.
Stars are looking on her bed,
Peeping through the roses red;
Ne'er would love-lorn starlight miss
Rapture of her sleeping kiss.

Honeysuckles upward climb
Trumpet-like in whispered chime,
Bending toward her casement-light,
Listening to her dream's delight,
Trembling with the strident note
From the night-hawk's mottled throat,—
Would my heart were with her sigh,
Or a honeysuckle I!

F. W. G.

The Armour Half-Back

Prize Story

The rooms of the Paragraph Club were thick with smoke when Newcome came in.

"A little game?—Don't let me interrupt—don't get up, I beg of you."

No one had paid the slightest attention to him.

"Hello, Newcome!"

"Don't you know it's customary for Freshmen to rise as one man—it takes about four Freshmen to make one man—to greet Seniors? Ouch! Stop that! Save those pillows! Things seem to be comin' my way."

"If you must talk, Newcome, tell us a story."

"A real Armour story?"

"Of course."

"Oh, I say—" Newcome began.

"Let it be brief."

"I don't know any stories."

"Yes, you do—go on."

"That's what Roney asked us to do in English th' other day."

"What did you tell about?"

"I didn't tell; I wrote."

"Well, go on and hurry up. What did you write about?"

"I wrote about a half-back we had last year."

The audience waited what it considered a sufficient length of time.

"What about him?"

"Nothin'; that's the trouble. I couldn't make a decent sized tale of it."

"Oh, go on!"

"I can't remember just how I wrote it. Anyway, we had a little bit of a two by twice, chunky, red-headed fellow on the Armour Feet-ball team last year. None of you fellows know him."

"What was his name?"

"Billy Bailey; he graduated last year. We used to call him the scrub half-back beause he was so chunky and wasn't good for another thing but carrying the pig-skin. My soul, but he was a corker at that! He couldn't be beat. He could run to beat the band, and kick, too. There's a legend that he never failed to kick goal."

"How did you happen to let him get away?"

"If I'm interrupted, I'm liable to forget what comes next. Now, I've lost the place."

"The last word was goal."

"Oh, yes! Well, we had got to dependin' on Billy for the heavy work and he rose to the occasion every time until 'long toward the end of the year, when we really needed him, then he promptly began to fail. The little brute! None of us could think what was the matter with him; it wasn't that he couldn't play, but he wouldn't. It seemed all the funnier to us because he had always worked harder than any of the rest of the fellows, and was in the hardest kind of trainin', and that was just exactly what was the matter, but none of us knew it then. It was simply a case of over-trainin'."

"Never heard of such a thing!"

"Course not; Freshmen are not supposed to know these things. Over-trainin's a serious thing, though, for it has that effect on a fellow every time. It makes him lazy and indifferent. Why, I've seen Billy pinch himself many a time when he thought he ought to

be showing more interest. He was always first at practice games, and yelled the loudest, but let him get into a close place with the whole push down on him, and he'd crawl out every time, and once I heard him say 'ouch!' Oh, he got to be just awful. Poor little brute! The boys were all dead sore on him and Tarbell got him on the sub. list. Well, here the hottest game of the season was about to come off, and no Billy."

"Did he quit?"

"No, oh, no, I don't mean that; he was there all right, but he was no good. We needed him like fury, for we were going to play the last game with Lake Forest, and they're a warm team. We played in Banker's Field and had a great spread. Everybody here turned out, which was very extraordinary, for they were the coldest blooded set 'round here last year you ever saw. Nobody cared what became of the old team, but for this game the girls even turned out. The Walker girls were there, you know one of them—Kate—she's here yet."

"William's 'steady'?"

"Yes, that's the one."

"My soul!"

"I should think so;—distracted his attention so he could hardly play."

"Well, we had a hot game."

"Who else was there?"

"Oh, let's see—Florence Atkins was there with her push. You don't know her, either; but she was the 'star member' last year. Prettiest girl in the school—or out of it. Blonde, tall and slender, and graceful, and all that—popular, too; everybody knew her, but I didn't like her much. She had too many 'ideas,' and was too new-womanish. There were several girls with her you know—Kate Kregelo,—"

"Never heard of her."

"You will in time; she's here yet. They were all decked out in the college colors and had pennons. Well, as I was about to remark when so rudely interrupted, we had a hot game. We played rank at first. They walked all over us. They scored a touch-down in spite of everything before we could stop 'em. Things looked pretty blue. I saw old Billy out with the subs and kind of wished he was back with us, for he looked all broken up and interested enough then. It was just before the end of the first half that they scored, and during the intermission they got gay and swiped the Senior's pennon. Of course we all made a rush for it. I don't remember how many were killed, but I do remember that when I excavated my head from under a fellow's arm, I saw old Billy tearing across the field to beat three of a kind, with the pennon tucked neatly under his arm. He ran fifty yards across the field with all of our fellows yellin' at the top of their voices, and a few of the Lake Forest's stragglin' after. The boys went wild, lifted him upon their shoulders and ran across the gridiron with him; Billy sat there grinnin' from ear to ear and bouncin' up and down and it did our hearts good to see him. Then it was time for the second half. Things began pickin' up with us. We did not score, but we held them well. The ball was lost by both sides time and time again by fine work of the line, and it seemed to be a matter of endurance to win. Finally our man Wheeler got the ball and gained twenty-five yards. Oh! say, we didn't do a thing to them. They never touched him. But right after that they held us for three downs. They got the ball, but Tarbell made a fine tackle and through a fumble got the ball and by a fifty yard run made a touch-down; then old Dunning got hurt and was taken to the side line.

"He ain't hurt, is he?"

"Nope, he's loafin'."

"That was a bloody half; it took an hour and a half to play a twenty-five minute half, but Dunning was the first man to lay off. Tarbell naturally called on Billy and I was glad to see him get on; but maybe you think I wasn't disgusted when he began actin' just the way he was for the last three weeks. He was dead in the shell. Things had been goin' our way, though, and we were ready to kick goal. Billy was star kicker, so Tarbell selected him. Maybe we weren't hot, though, when we saw him gazing round the field as if nothin' was happening. Any man that could deliberately gaze about a field when the hottest game of the season depended on him ought to be shot on sight. He gathered himself together after he'd surveyed the crowd, and seemed to look a little more determined. I'd have

staked a good deal that he'd kick goal, and he did. Great Heavens, Maude! I'd say he did! The fellows went wild. They tried to get hold of him again and ride him 'round the field, but 't was no go. Time was called in about five minutes, and Billy started 'cross the field to the training quarters. I met him, and what do you suppose he said? He said, 'Say, Newcome, did you see that girl over there on the other side of the field—the tall blonde with the pennon? Several girls with her? Who is she?' I told him that I supposed he meant Florence Atkins, and asked what he wanted to know that for, but he didn't say. Fancy a crazy question like that after a hot game, and fancy anyone at Armour for four years without knowing her. I didn't think that sounded well, so I didn't mention it in my first story—the one for Roney."

"Is that all?"

"It is—isn't it enough?"

"'Tain't much."

"There was precious little point in what you told us, and if you left that out in Roney's, I should think it'd be interesting."

"I know what Roney'll say about it."

"What?"

"Lacks point and originality.—Re-write."

"I don't know that a Freshman's in right training for seeing a point."

"Well, if that's the best you can do, I suppose we might as well go on with the game."

"Bring out that keg of cider we've been entertainin'."

"First wake that over on the couch."

"Wait, let's paint him a pair of whiskers!"

And they did.

M. I. B.



"METOXEN FINDS A HOLE"

An incident of the Great Indian-Porkpacker Game, described in the December *Fulcrum*.



"Armour Avenue Types."





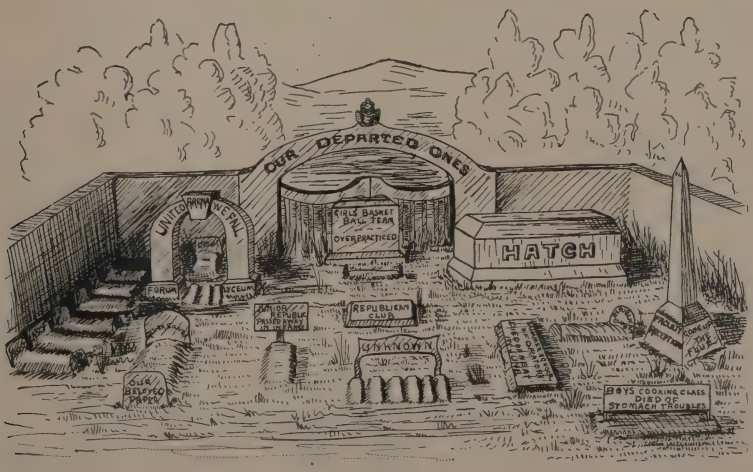
TWO OF THEM GREW:

Dead leaves autumnal shed,
Fragrant and damp, and all the varied green
Of moss and spotted trillium between
Kept them apart—two roses white and red.
And yet each felt the other breathing there
Sweet, sensuous fragrance through the wood might float,
A satin petal, or a golden mote
Of powdery pollen lingering on the air.
And so we two — though we have never seen
Each others' face or clasped each others' hand
Yet know each others' being. We may stand
Some time — some happy day — who knows? between
The future and the past, and realize
The happy present in each others' eyes.

Extracts from Hand-Book

Rooms For Rent

DESCRIPTION	DISTANCE IN BLOCKS FROM INSTITUTE	HEATED BY	PRICE PER WEEK	REMARKS
1 Room	13 N. W.	Sun	$1.69	Freshman Preferred
Upper Story	3 Miles West	Warm Bricks	48c	2 Old Maids down stairs
Lower Parlor	1½ S. E.	Transom	Milking Cow	Cow Gentle
Basement	0 0	Escaping Steam	See the Faculty	Down Stairs
Two Room SUITES	1 North	Lamps	Shoveling Snow	Handy to State Street
Armour Flats	2 S. E.	Reflected Moonlight	See Catalogue	Very Quiet and Home-like
Bachelors' Retreat	S. Chicago	Janitor	Peeling Potatoes	Front Door Locked, 3 A.M.
Laundry Office	East Lake	Usual Method	0 0	Bed Travels Alone
Box Car	Stock Yards Switch	Animal Warmth	Fix it with Bailiff	Capacity, 33,000



The Photographical Society of the Armour Institute of Technology

THIS society is our youngest organization. During the first few days of the Winter term of the present year Mr. Alfred Weller, of the Electrical Department, suggested the scheme and succeeded in securing a number of enthusiastic followers. The plan was consummated on February 2d, 1898, when a constitution was adopted and officers elected. The future prospects of the society are especially promising, and it is hoped that the members may learn something about photography, which, while not altogether essential to the engineer or architect, may yet be very useful.

The active membership list is limited to male members of the Institute. Persons not connected with the institution may become associate members. Photographers, whose range of the subject extends from the inexperienced beginner to the veteran amateur, are welcome.

The aim is to produce an advanced class of amateurs; to teach the members the scientific principles of photography and the related branches, train them in the practical use and application of the same, and in æsthetics, so that they may be able to understand the artistic perceptions in this line. In order to accomplish these aims lectures are given by prominent scientists and practitioners, and practical exercises are given; also excursions and exhibitions are planned, and finally the possession of a dark room, a finishing room and a studio, allows every member the opportunity of becoming proficient according to his ability.

It is hardly necessary to state that by means of such a co-operation the individual expenses are reduced to a minimum.

The society has a vast field in which to work, and with the resources at hand there is no good reason why it should not flourish and be a factor of much practical good, as well as a source of pleasure to its members.

Officers

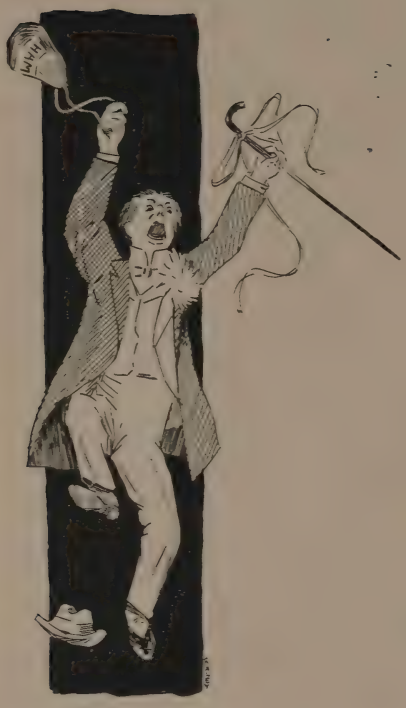
(Term Expiring March 23, 1898.)

President	E. C. White
Secretary	G. H. Patten
Vice-President	F. S. Wilhoit
Treasurer	C. H. Roesch
Custodian	A. G. Langworthy

Members

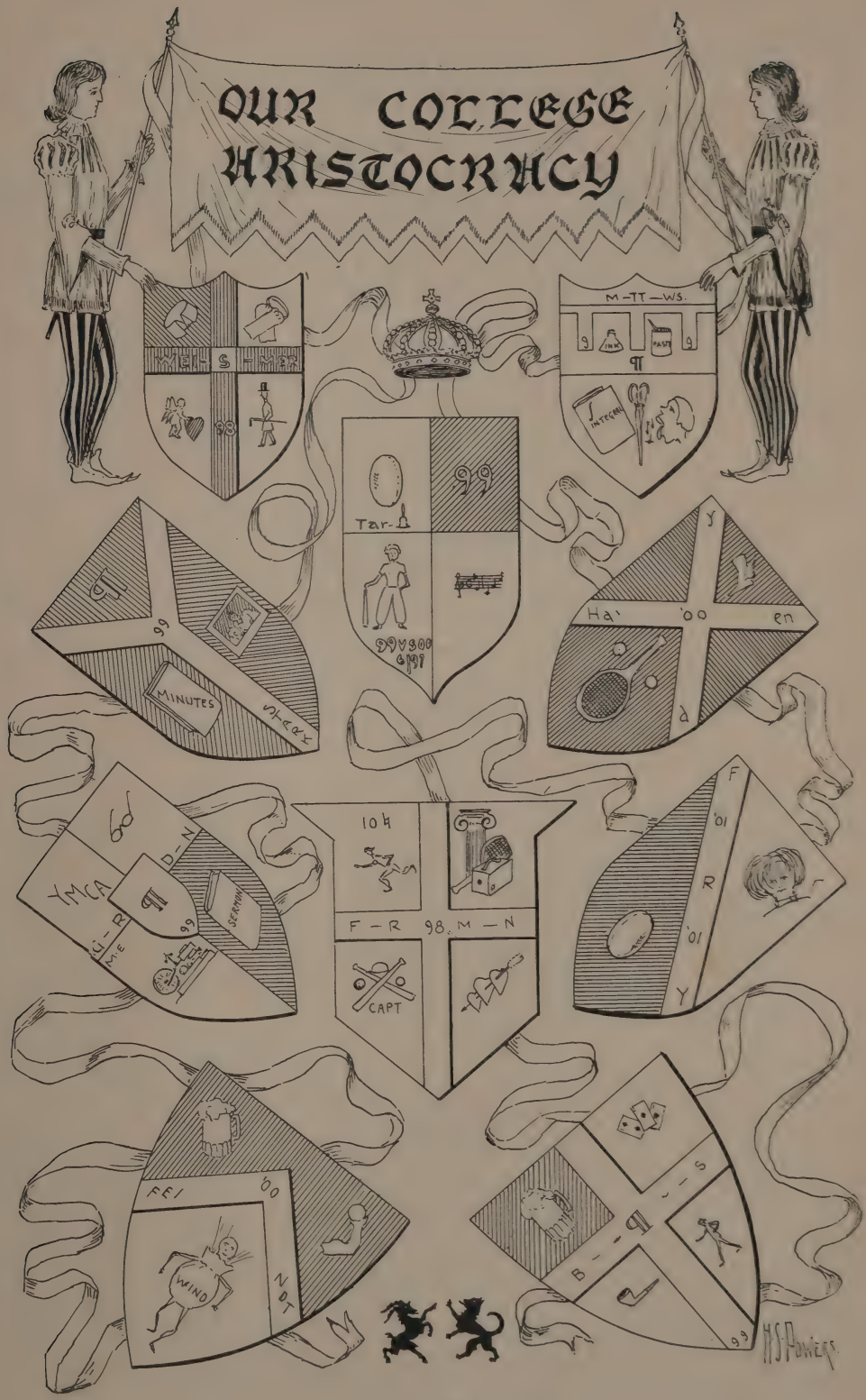
S. E. Bippus, E. G. Hindert, E. H. Olson,
W. T. Dean, R. S. Huey, G. H. Patten,
C. E. Freeman, G. K. Hanai, L. I. Porter,
G. A. Feindt, E. C. Johnson, H. S. Powers,
R. T. Fry, W. I. Lewis, C. O. Ransom,
W. J. Gordon, C. E. Lewis, B. de Rimanoczy,
Dr. F. W. Gunsaulus, F. A. Krehbiel, C. H. Roesch,
C. A. Garcelon, L. F. Mahler, E. A. Smith,
R. H. Gay, W. D. Matthews, T. W. Stevens,
E. H. Nagelstock, H. J. Slaker,
F. Y. Low, Alfred Weller, A. G. Langworthy,
F. S. Wilhoit, E. C. White.


SOPHOMORES
HALLO
ORDER
Lowe - Pres.
CANADA
TOUSLEY
Fisher
MUEHLMAN
THE GREAT
ACTOR
CREELMAN AND PARKER MEET AGAIN AFTER THEIR LONG SEPARATION
The Howling Quartet
Mr. Graff, 1st tenor Mr. Steck, 1st Bass
Mr. Skloosky, 2nd tenor Mr. Taylor, 2nd Bass
Watson
ZIMMERMAN AND CARGELON
EXERCISING
LONGNECKER AND FEINDT RUNNING THE ATHLETIC BOARD
ATHLETIC BOARD
ALLEN
THINKING
HAUSSMAN
BRADLEY
HAYDEN
MARTIN
VAPORISES



"First Annual Armour-Lewis Game."




OUR COLLEGE ARISTOCRACY
M—TT—WS.
INK
PAST
INTERCOM
Tar-
99
MINUTES
CLERK
Hal
'00
en
YMCA
D—N
SERMON
99
104
F—R 98. M—N
CAPT
F
'01
R
'01
Y
FEI
00
WIND
NOT
B—
—S
99
HS Powers



A LAD full of youth's effervescence
Romped, heedless of care all day long,
On his face was the smile of contentment,
In his heart ever waking, a song.
The days glided on, Oh! so slowly,
His spirit was restless within,
He saw the wide world spread before him,
And had only one wish—to begin.
The wise words of those more familiar
With life and her smile, glad and grim,
Seemed empty, and carried no omen,
For time spread abundance for him.

* * *

An old man with tottering footsteps
And locks silvered white with the years,
Stands looking back o'er a pathway
Marked with victories, sorrows and tears.
Behind is a life he has honored,
Ahead stands the grim specter, Time.
The sands in the hour-glass remorseless
Run out—still the mystical chime—
Sounds on, on and on, and the traveler
Whose conquering hands palsy and fall,
Cries out for one moment to linger,
But the reaper cares not for his call.

The Angel of Death claims the victory,
The bright light of Life flits away,
And nothing is left of the worker
But cold and now tenantless clay.
The broad seas of Life for one moment
Are rippled—but soon close over all—
The waves roll along and the breakers
Dash high, shake the earth and then fall.

AL. DUNLAP.



"None but himself could be his parallel."— Dr. G–nsa–l–s.

"He had schemes to burn."— M–st–rs, Ex. Spl.

"Silent and restless, idle, pensive, slow."— M–lc–l–s–n, '97.

"I have forgotten what the inside of a church looks like."— W. H. Fe–n–t, Ex. S. A.

"Thinking that you are thinking is no sign that you are thinking."— W–ite, '99.

"He was a scholar and a ripe and good one."— Prof. Al–e–s–n.

"Many times."— S–ens–n, Ex. '99.

A man of good repute, carriage, bearing and estimation."— P–s–y, Ex. '97.

As fragile as a rose at spring's farewell."— R–ch–rds–n, '97.

"'Twere better to be kissed and caught than never to have been kissed at all."
— D–isv W–ls–on, S. A., '95.

"Men of few words are the best men."— Prof. P–rt–r.

"And then it talks, ye Gods, how it talks."
— F–in–t, '00.

"Born but to banquet and to bowl."
D–v–np–rt, '01.

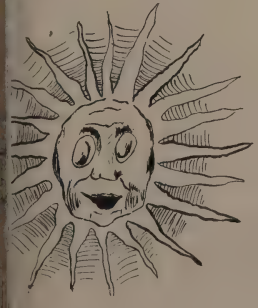


He wears his faith, but as the fashion of his hat, it ever changes with the next block."— B–o–g–tt, '98.

"Nature never did put her precious jewels into a garret four stories high, and therefore exceeding tall men had ever empty heads."— T–rb–ll, '99.

"Noiselessly in their silent whirl the wheels go round and round."— S–h–o–d–r, '99.

"Co-education is the thief of time."— W– –nsh– –m–r, '98.



"With a heart for any fate."— B–adl–y, '00.

"As prone to mischief, as able to perform it."— K–pp–s, '98.

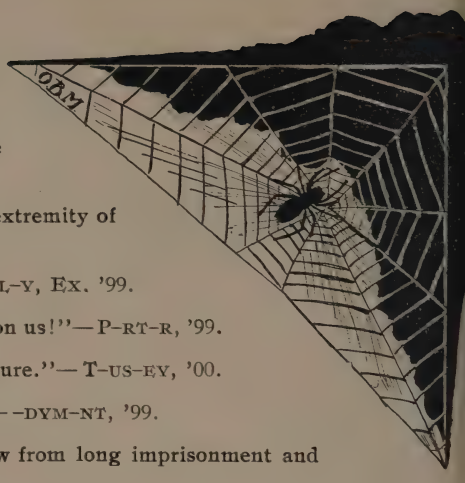
"I am growing tall."— M–lls–a– –h, Ex. '01.

"Spare your breath to cool your porridge."— L–w, '00.

"The real Simon Pure."— P–v–y, '99.

"With just enough of learning to misquote."— P–lm–r, '00.

"A lady, and a true friend."— Mrs. B–ll.



"She has so kind, so apt, so amiable a disposition."—MISS B–USH.

"Drink no longer water, but use a little wine for thy stomach's sake."—ZI– –ERM–N, '01.

"For truly in my youth I suffered from the extremity of love."—P–TT–N, '98.

"I am not especially fond of St. Joe."—W–L–Y, EX. '99.

"Gee! Fuzz! Golly!" "L I P" "Mercy on us!"—P–RT–R, '99.

"A baby in a house is a well spring of pleasure."—T–US–EY, '00.

"The only captain on the canal."—F– –DYM–NT, '99.

"His sinews were waxed weak and raw from long imprisonment and hard constraint."—MACC–YM–NT, '98.

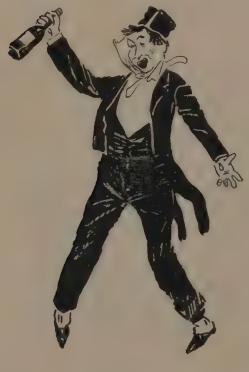
DON'T quite understand that last statement, Professor."—M–HL–R, '99.

"Now, in the name of all ye gods at once, upon what meat does this man feed that he has grown so great?"—B. H–LL, '97.

"Arise and shake the hayseed from thee."—H–ND–RT, '98.

"Although I am a pious man, I am not the less a man."—SH–F–R, '01.

"And they marveled as they saw him pass—this great and God-like man."—D–CK SI– –N, '97.



"Let a little sunshine in."
—M-TT-EWS, '99.

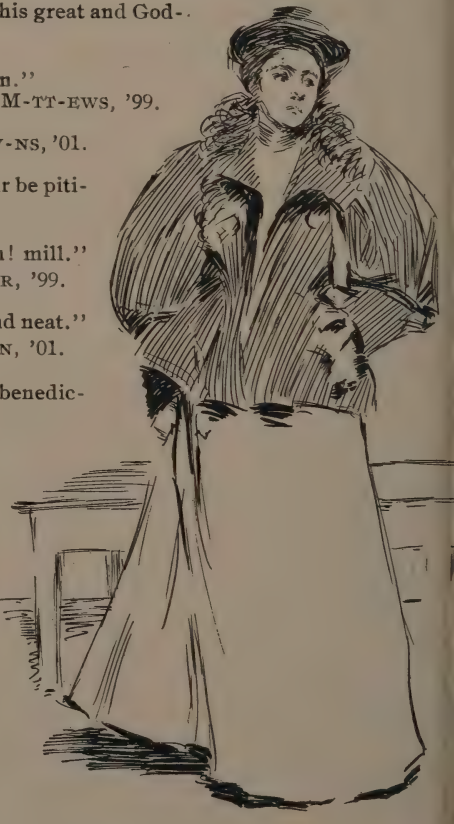
"A good thing."—S-EV-NS, '01.

"When you see fair hair be pitiful."—G-y, '98.

"Grind, grind, grind Oh! mill."
—B RR, '99.

"So smooth and prim and neat."
—B-C-N, '01.

"He had a face like a benediction."—M-R-E, '99.



"I have a limited supply of gas engines in course of construction."—BR– –KSM–T, EX. '99.

"He is ready to converse on things heavenly or things earthly, things foreign or things at home, things more essential or things circumstantial."—MCK–NS–E, '98.

"And still the wonder grew that one head could carry all he knew."—G-OV-R, '97.

"I need a few pictures with which to decorate my room."—GR--N, '01.

"She has developed (a) fine taste."—Miss B-ll-rd.



"Age can not wither her, nor custom stale her infinite variety."
—Miss T-yl-r.

"Of manners gentle, of affections mild,
In wit a man, simplicity a child."—G-rd-n, '99.

"I'm getting a big man now."—H-ss '98 S. A.



"He was so good he would pour rose water on a toad."
—T-ich-ll.

"Blest be the tie that binds."—B-nd, '00.

"Some men are born for great things,
Some for small;
Some it is not recorded
Why they were born at all."—N-g-l-t-ck. '98.

"Studious of ease, and fond of humble things."—C-r-y '99.

"Fat and forty."—Pa-ker '00.

"Short of stature he was, but strongly built and athletic."
—M-ll-r, '00.

"Oh! I don't know."—D--n, '99.

"Spreading himself like a green bay tree."—A-n-ld, '01.

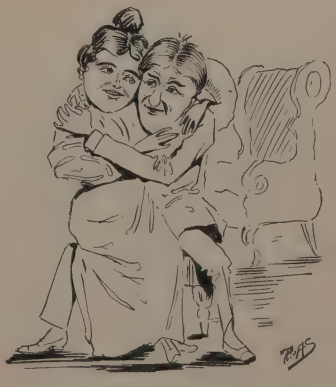
"There was a laughing devil in his sneer."—l-ngn-ck-r, '00.

"For the love of Pete."—H-ey, '99.

"When did morning ever break,
And find such beaming eyes awake?"—Miss C. F-lt-r, S. A.

"His only thought is that he has none."—M-rt-n, '00.

"A loyal, just and upright gentleman."
—W-dsw-rth, Ex. '99.



"I have a real, bonafide job."—Si-s, '97.

"Where is my child?"—Echo answers "Where?"
—C-ee-em-n, '00.

"Nature has formed strange fellows in her time."
—St- -kw- -th-r, '99.

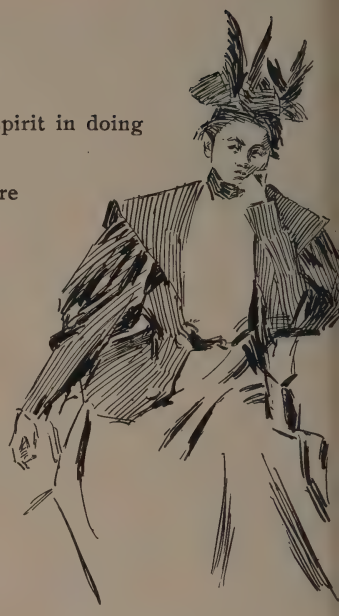
"Had I been present at the creation, I would have given some useful hints for the better ordering of the universe."—Gr-ff, '00.

"Happy am I, from care I'm free;
Why aren't they all contented like me?"

"A progeny of learning."—B-SS-E C-RT-S, Ex. S. A.

"Twelve years ago I was a boy."—S-O-E, '01.

"The kindest man, the best conditioned and unwearied spirit in doing courtesies."—PROFESSOR M-N-N.



"There was glory in his forehead, there was lustre in his eye."—FR- -M-N, '97.

I am a most fascinating young male."—WH- -L-R, '98.

"I am very fond of the company of ladies."
—F-Y, '98, S. A.

"The beginning of the end."—ST-CK, '00.

"There is little of the melancholy in her."
—MRS. B-V-R-DGE.

"A bag of air, expanded money volumes."
—EX. PROFESSOR H-T-H.

"He hath borne himself beyond the promise of his age."
—L- -P-R, '98.

"4-11-44,"—B-OO-S, '98, S. A.

"I have fought a good fight, I have finished the course."—MU-LL-R, Arch., '96.

"I am especially fond of chemistry."—J-E. G-N-S- -L-S, Ex. '99

"There may be others but they're hard to find."—B-PP-S, '99.



"I am the greatest philosopher in the world."—
FL-ND-RS, '98.



F all sad words of tongue or pen, the saddest are these: "I've flunked again."—M-CY- G- -D, Ex. '97.

"Write me as one who loves his fellowman."—A-B-N, '00.

"Heaven send us more such gents."—O'L- -RY, Ex. '99.

"The mills of the Gods grind slowly, but exceedingly fine."—S-I-T, '00.



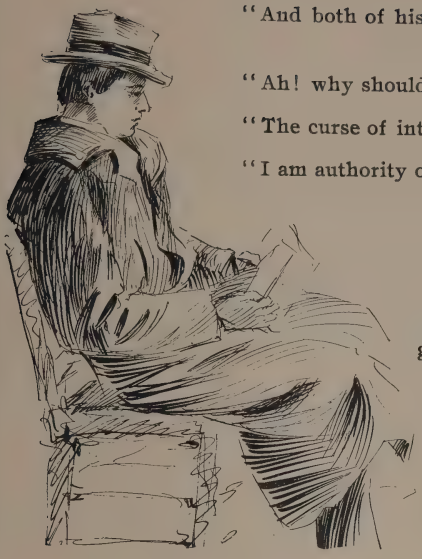
"One of Oscar's most remarkable subjects."
—O-S-N, '99.

"A man who slept with Roberts' Rules of Order."
—FE- -IS, Ex. S. A.

"That fellow would vulgarize the judgment day."
—MU-HL- -NN, '00.

"Behold how homely a beard doth make a man."
—CH- -CH, '97.

"Hark to the hurried questions of despair."
—J-HNS-N, '99.



"And both of his legs were longer than they really ought to be."
—MA- -NY, '97.

"Ah! why should life all labor be? "—L-NGW-RT-Y, '01.

"The curse of intellect is upon thee."—R-CE, '97.

"I am authority on the workings of the faculty."—I,--, '99.

"How debonnair is my black hair."—R-ES-H, '98.

"Aboutas broad as it was long."
—T-M-Y W--Y, EX., '99.

"The little foolery that wise men have makes a great show."—PROFESSOR R-N-Y.

"I have immortal longings in me."
—S-O-SKY, '00.

"He did nothing in particular and did it well."
—J-M--ON, '97.

"Ravished with the whistling of a name."
—R-M-N-C-Y, '99.

"A gracious thing, and made up of tears and light."—H-YD-N, '00,

"One of the few immortal names that was not born to die."—F-IRM-N, '98.

"I can't do that problem; it must be one in four dimensions."
—M-NTC-YK, EX., '99.

UCH of a muchness."—H-N-I, '99.

"And lo! his name led all the rest."—T-YL-R, '00.

"Kick, kicker, kicked."—S-UB--T, 99.

"His occupation was agriculture, judging from the amount of wild oats he sowed."
—T-RRY, '99.



My Ravin'

Once upon a midnight dreary,
As I pondered weak and weary,
I heard a rapping, tapping, slapping,
Beneath the lapel of my vest.
"What can it be?" quoth I all feary,
And a little wee bit skeery,
"What means this pounding, bounding, wounding?
Down there in love's tender nest?"

And then I struck a brilliant theory
"'Tis some thoughtlet sweet and dreary,
That makes this crashing, clashing, slashing,
On the left side of my chest."
And this discovery made me re-
Mark, "You'd best be somewhat leery,
Or this crusher, gusher, slusher,
May make sad havoc in thy breast."

And my heart grew sore and seary,
And my sweet sad face was teary,
At this funny, stunny, honey,
Which said, "You'd best give love a rest."
Then my pent up love waxed bleary,
As I pondered, weak and weary
It grew swishy, dishy, fishy,
Quoth I, "Go west, young man, go west."



"A Notable of '98."

ALSO PROMINENT AS FOOT BALL MANAGER.

Ye Pumpkin Romance



'Way down East, in a town of two score,
A father raised Tarbells and pumpkins galore.
The youngest, called Clarence, was a dear little youth,
His legs grew as fast as young "punk" vines, forsooth.
The free mountain air coursed his matted locks through,
As on one evening he groped 'mid those pumpkins, fehr blue.



"Why yes, why cant this rash learned lady
Just do as I want her, and call me her 'steady.'"
"Hour after hour this hot summer long
Have I tended these pumpkins with soul bathed in song;
"My pride—my prize—hidden deep in the patch,
His golden sides gleaming, without blemish or scratch."
"On a sled did I lift him, with back almost broke
Two hours did I tug—by gosh 'twas no joke."
"But at last Mr. Punk was landed to suit
I pinned on my verse and took a swift scoot."
"Dearest Mandy: Heres food for thy stomach's delight
Make pies fat and forty—think of me with each bite."



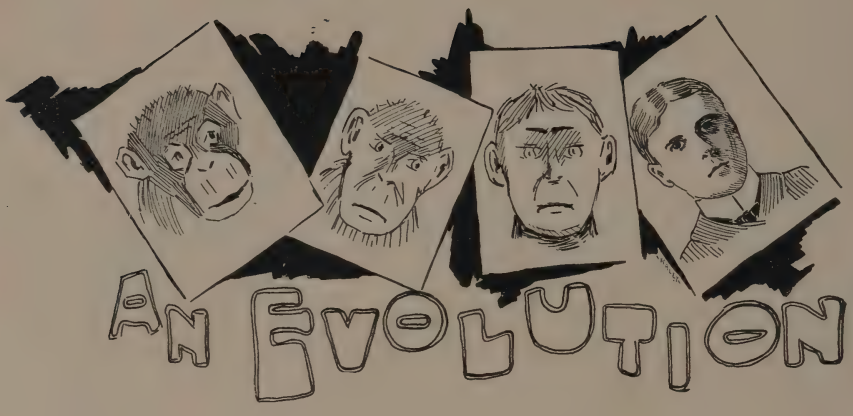
"Taint any use trying—no love in her breast
Good-bye, yellow Brothers, I'm off for the west.
Four years has our friend languished day after day,
His growth stunted early, no heart in our play
Mid Physics and Chem, Math, Valve gears and English,
He plods on his course, straight toward the finish.



Oh sweet anxious moment, in that town of so few
As Clarence returns, when Tech days are through
Straight to Miss Mandy will go our M.E.
No pumpkin to offer, but a bright, new degree.



Peal, all ye bells, ye band make much noise
Your young pumpkin expert returns crowned with joys.



Ye Freshman singeth a merry song
(And winketh his eye with a smile.)
Of a feast, and a ride with ye pretty girl
(His gayness will last but a while.)

Ye Sophomore singeth a boastful song
(And holdeth his head full high.)
Of all that he knows and the place that he fills
(But soon his great pride low will lie.)

Ye Junior singeth a weary song
(And filleth the air with a groan.)
Of Physics, of duties his years bring on
(But soon he'll no longer make moan.)

Ye Senior singeth a knowing song
(With great words that are solemnly hurled.)
Of the ways of mankind that he thinks he can mend
(But he knows not ye cold, cold world.)

B C.



BOOK MARK

Designed by Chas. T. Malcomson, for Prof. W. M. Stine,
Director of the Department of Electrical Engineering, Armour Institute of Technology, '97.

PROF.—"Mr. Bippus, please define *time*."

BIP.—"Time is something that is going on all the time."

PROF.—"That's it."

"Is Mr. Coxey (Corey) here?"—MCCLINTOCK.

"Inasmuch as this is an illusory form, it is essentially negative, and I will show you the point of a(t)tack.—ALDERSON.

OLE OLSON TO GUS SWENSON.—"Please translate this Norwegian for me."

FEINDT, '00 (to Prof. who has just ended a lengthy discussion on closed lines of force)—"Prof., will you please go over that part about 'clothes-lines of force?'"

PARKER, '00 (rushing from desk to desk in E. E. Lab.)—"Have any of you fellows seen an ampere around here?"



PROF. PFEFFERKORN ENGAGED WITH "THE IRIS."

We went to Cupid's retreat,
We wandered on the sand;
The moon was coming up,
I held her little—shawl.

I held her little shawl,
How fast time flies?
The band played "After the Ball,"
I gazed into her—lunch-basket.

I gazed into her lunch-basket,
I wished I had a taste;
There sat my little charmer,
My arm was 'round her—umbrella.

My arm was 'round her umbrella,
This cunning little Miss,
Her eyes were full of mischief
And I slyly stole a sandwich.

I slyly stole a sandwich,
Although 'twas hardly fair,
The moon rose o'er the water,
I stroked her shining—umbrella-handle.

There is no moral in this song,
But one that all can see;
Be sure, when you tell this tale,
You do as well as me.

—WITTENBERGER.



AN IDEAL VIEW OF OUR QUARTERS, AS CONTRIBUTED BY OUR YOUNG COUSIN IN KENTUCKY.

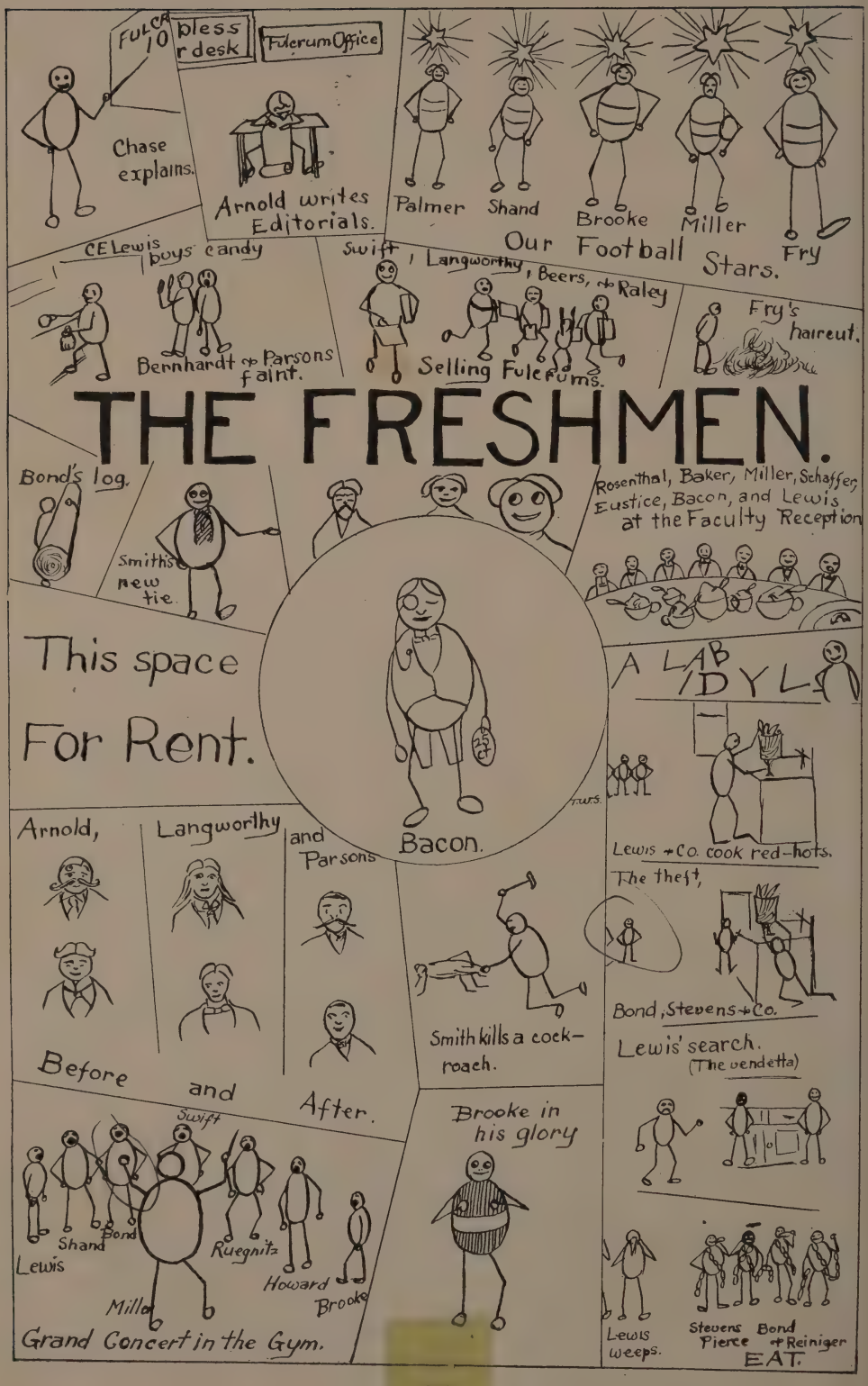
Sporty-cuss to the Gladiators



YE call me Captain, and ye do well to call him Captain who for long years has bucked every old line the county of Cook over, and who has never yet got it between the collar-buttons. If there be one among you who can say that ever on an end-run or a center play my actions did belie my words, let him stand forth and say it. If there be three in the eleven dare face me on the bloody field, let them buckle on their shin-guards and come at me. And yet I was not always thus a savage chief of still more savage men. My ancestors came from out near Aurora and settled among the corn-fields of the Calumet. My early life ran as quiet as the Chicago River, and when at noon I gathered the cows into the barn and tried to work the Dean, there was a friend who joined me in the past time. We roomed together and ate at the same beanery.

One evening after the chores were "did" and we were all seated beneath the mortgage which hung over the cottage, my brother, a cheerful skate, was telling of Beloit and Hyde Park, and how on a defiled ball ground our little band had withstood a whole host of professionals. I did not know the game then, but I said funny things, I know not why, and I grabbed the knees of my aforesaid brother and would have made a touch-down then and there had not my father, gently patting me with an elm club, bade me go to bed and think no more of savage warfare. The very next day the hirelings landed on our coast. I saw the face of our full-back trampled under foot, the bleeding body of our center born from the field in pieces. To-day I killed a man on the grid-iron, and when I lifted his nose-guard, behold! he was my friend. He knew me, said something, rolled over and expired. I told the umpire that he was my friend, and begged that I might carry his body away and burn it, as coal was scarce, but the umpire drew sternly back and said: "Let the carrion rot! There are no noble men but Armour's," and so, fellow students, must you and so must I die like dogs. Oh, Armour! Armour! Thou hast been a tender nurse to me. Ay! Thou hast given the poor gentle country boy who never knew a harsher note than the dinner horn, muscles of iron and a face of brass; taught him to gaze into the eyeballs of the Registrar even as a boy upon a laughing girl. Hark! Hear ye yon rooter roar? 'Tis three days since he has feasted his eyes on the slaughter. If ye are men, follow me! Strike down yon guard and center and do bloody work or all is lost — is lost.

W. M. L.


Fulcrum
bless r desk
Fulcrum Office
Chase explains.
Arnold writes Editorials.
Palmer
Shand
Brooke
Miller
Fry
Our Football Stars.
C E Lewis boys candy
Bernhardt & Parsons faint.
Swift, Langworthy, Beers, & Raley
Selling Fulcrums.
Fry's haircut.
THE FRESHMEN.
Bond's log.
Smith's new tie.
Rosenthal, Baker, Miller, Schaffer, Eustice, Bacon, and Lewis at the Faculty Reception
This space For Rent.
Bacon.
A LAB IDYL
Lewis & Co. cook red-hots.
The theft,
Bond, Stevens & Co.
Lewis' search. (The vendetta)
Arnold, Langworthy and Parsons
Before and After.
Smith kills a cock-roach.
Brooke in his glory
Swift
Shand
Bond
Lewis
Ruegnitz
Howard
Brooke
Grand Concert in the Gym.
Lewis weeps.
Stevens Bond Pierce & Reiniger EAT.


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LANGWORTHY PULLS THEM OUT DURING VACATION
THE "FULCRUM"
ARNOLD - LANGWORTHY - STEVENS
SWIFT - MILLER - RALEY - LEWIS
FRESHMAN DUES
25 Cts
ROCHLITZ
RJR
LOEB RETURNING FROM LUETGERT JURY
CHASE DREAMS HE IS FLUSH ENOUGH TO BUY A FULCRUM!
BEERS FAINTS AT SWIFTS PUNS, BUT THE HERO PEASE, SAVES THE LIVES OF DAVENPORT and COHEN
LINDBERG-IRREPAIR-ALSCHULER AND COLBURN LANGWORTHY FROM
GREEN PHOTOGRAPHED WHILE STEALING THE FLAG FOR '99

College Statistics

Name	Location	Founded	President	Students	Instrs.	Colors	Annual
Albion	Albion, Mich	1861	Lewis R. Fiske, D. D., LL. D	475	30	Pink and Green	Saga
Amherst	Amherst. Mass.	1821	Merrill Edward Gates	370	35	Royal Purple and White	The Olio
Armour Institute of Tech.	Chicago. Ill	1892	Frank Wakeley Gunsaulus, D. D.	950	42	Yellow and Black	The Integral
Atlanta University	Atlanta, Georgia	1867	Rev. Horace Bumstead, D. D.	300	23	Red and Gray	
Barnard	New York, N. Y.	1889	Emily James Smith, A. B., Dean	216	35	Blue and White	The Mortar Board
Boston University	Boston, Mass.	1874	William F. Warren, LL. D	1426	118	Scarlet and White	The Hub
Bowdoin	Brunswick, Me.	1794	William DeWitt Hyde, D. D.	380	32	White	The Bugle
Brown University	Providence, R. I.	1764	E. Benjamin Andrews, D. D. LL. D.	840	77	Brown and White	The Libre
Bryn Mawr	Bryn Mawr, Pa.	1880	M. Cary Thomas. Ph. D., LL. D.	311	43	Yellow and White	The Lantern
Buchtel	Akron, Ohio.	1870	Rev. Ira A. Priest	173	16	Navy Blue and Old Gold	The Buchtel
Colby University	Waterville, Me	1818	Rev. Nathaniel Butler, D. D	210	17	Pearl Gray	Colby Oracle
Colgate University	Hamilton, N. Y.	1818	George W. Smith, A.B., LL B., LL.D.	344	21	Orange and Maroon	Salmagundi
College of William and Mary	Williamsburg, Va.	1693	Lyon G. Tyler	142	9	Orange and White	
Colorado College	Colorado Springs, Col.	1874	William F. Slocum, L. L. D	125	33	Gold and Black	
Columbia University	New York, N. Y.	1754	Seth Low, L. L. D.	1921	292	Light Blue and White	The Columbian
Cornell University	Ithaca, N. Y.	1868	Jacob Gould Schurman, D Sc., LL D.	2062	174	Carnelian and White	The Cornellian
Dartmouth	Hanover, N. H	1769	William Jewett Tucker. LL. D., D. D.	650	48	Green and White	Aegis
DePauw University	Greencastle, Ind.	1837	Hilliory A. G bin, D D.	710	35	Old Gold	The Mirage
Dickinson	Carlisle, Pa.	1783	George Edward Reed	305	25	Red and White	Microcosm
Drury	Springfield, Mo.	1873	Homer T. Fuller	260	18	Scarlet and Gray	Drury Mirror
Fisk University	Nashville, Tenn.	1866	Erastus Milo Cravath, D. D	449	31	Blue and Old Gold	
Franklin and Marshall	Lancaster, Pa.	1852	John S. Stahr, Ph. D , LL. D	184	15	Blue and White	Oriflamme
Girard	Philadelphia, Pa.	1848	Adam H. Felterolf, Ph. D. LL. D.	1510	65	Steel and Garnet	
Hamilton	Clinton, N. Y.	1812	M. Woolsey Stryker	160	19	Blue and Buff	Hamiltonian
Harvard University	Cambridge, Mass.	1636	Charles William Eliot, LL. D.	3674	394	Crimson	
Hobart	Geneva, N. Y.	1825	Rev. Robert Ellis Jones, A. B	93	18	Orange and Royal Purple	Echo of the Seneca
Iowa	Grinnell, Iowa	1847	Rev. George A. Gaytes, D D., LL. D	500	30	Scarlet and Black	The Cyclone
John Hopkins University	Baltimore, Md	1876	Daniel C Gilman, LL. D	560	110	Black and Gold	The Hullabaloo
Kentucky University	Lexington, Ky.	1836	Charles Louis Loos	763	25	Orange and Blue	
Knox College	Galesburg, Ill	1837	John H. Finley, A. M., Ph. D.	650	35	Purple and Old Gold	The Gale
Lafayette	Easton, Pa	1826	Ethelbert D. Warfield, LL. D.	308	29	Maroon and White	The Melange
Lehigh University	South Bethlehem, Pa.	1866	Thomas M. Drown. LL. D.	365	40	Brown and White	Epitome
Leland Stanford Jr. Univer'ty	Stanford Univer., Cal.	1891	David Starr Jordan	1200	82	Cardinal	Stanford Quad
Maine State College	Orono, Me.	1865	Abram W. Harris, Sc. D	313	36	Light Blue	The Prism
Marietta	Marietta, Ohio	1835	J. H. Chamberlain, Dean	248	21	Blue and White	Mariettana
Mass. Institute of Tech.	Boston, Mass.	1865	James M. Crofts	1209	135	Red and Gray	The Technique
Michigan College of Mines	Houghton, Mich	1885	M. E. Wadsworth. Ph. D	115	18	Yellow and White	
Middlebury	Middlebury, Vt.	1800	Ezra Brainerd, LL. D	115	9	Blue and White	Kaleidoscope
Mt. Holyoke	South Hadley, Mass.	1837	Elizabeth Storrs Mead, A. M.	395	38	Light Blue	Llamarada
Muhlenberg	Allentown, Pa	1867	Rev. Theodore L. Seip, D. D	150	12	Steel and Garnet	The Chiarda
New York University	University Hgts., N.Y.	1831	Henry M. Mac Craken, D .D. LL. D.	175	31	Violet	The Violet
Niagara University						Purple and White	Niagara Index

Northwestern University	Evanston, Ill.	1857	Henry Wade Rogers	2113	246	Royal Purple	The Syllabus
Oberlin	Oberlin, Ohio	1833	(Vacancy)	1283	78	Crimson and Gold	Hi-O Hi
Ohio State University	Columbus, Ohio	1873	James Hulme Canfield	1052	102	Scarlet and Gray	The Makio
Ohio Wesleyan University	Delaware, Ohio	1844	Rev. J. W. Bashford	1270	45	Black and Red	The Bijou
Pacific University	Forest Grove, Ore.	1848	Rev. Thomas McClelland	183	11	Crimson and Black	The Index
Pennsylvania	Gettysburg, Pa.	1832	H. W. McKnight, D. D., LL. D.	271	16	Orange and Blue	The Spectrum
Pennsylvania State College	State College, Pa.	1859	George W. Atherton, LL. D.	375	48	Navy Blue and White	La Vie
Polytechnic Inst. of Brooklyn	Brooklyn, N. Y.	1891	David H. Cochran Ph. D., LL. D.	80	16	Blue and Gray	
Pratt Institute	Brooklyn, N. Y.	1887	Charles M. Pratt	3161	132	Cadmium Yellow	
Princeton University	Princeton, N. J.	1746	Rev. Francis L. Patton, D. D., LL. D.	1075	85	Orange and Black	Bric-a-Brac
Perdue University	Lafayette, Ind.	1869	James Henry Smart, LL. D.	664	60	Old Gold and Black	Debris
Radcliffe	Cambridge, Mass.	1879	Elizabeth C. Agassiz	390	96		
Rensselaer Polytechnic Inst.	Troy, N. Y.	1824	John Hudson Peck	140	16	Cherry	Transit
Rose Polytechnic Institute	Terre Haute, Ind.	1874	C. Leo. Mees	118	21	Old Rose and White	Rose Technic
Rutgers	New Brunswick, N, J.	1766	Austin Scott, Ph. D. LL. D.	168	27	Scarlet	The Scarlet Letter
Smith	Northampton, Mass.	1874	L. Clarke Seelye, D. D., LL. D.	1000	60	White	
Swarthmore	Swarthmore, Pa.	1869	Charles De Garmo, Ph. D.	160	21	Garnet	Halcyon
Syracuse University	Syracuse, N. Y.	1870	Rev. James Roscoe Day, Sc.D., LL.D.	1135	113	Orange	
Trinity	Hartford, Conn.	1823	George W. Smith, D. D., LL. D.	136	20	Blue and Gold	Ivy
Tufts	Tufts College, Mass	1852	Elmer Hewitt Capin, D. D. LL. D.	480	87	Brown and Blue	Brown and Blue
Tulane University	New Orleans, La	1834	William Preston Johnston, LL. D.	946	70	Olive and Blue	Jambalaya
Union	Schenectady, N. Y	1795	Andrew W. Raymond, D. D., LL. D.	260	26	Garnet	The Garnet
U. S. Military Academy	West Point, N. Y.	1802	Col. O. H. Ernst, U. S. A. Supt.	337	56	Black and Gray	
U. S. Naval Academy	Annapolis, Md	1845	Philip N. Cooper, Capt., U. S. N	259	66	Old Gold and Navy Blue	
University of California	Berkeley, Cal	1868	Martin Kellogg, M. A. LL. D.	2400	225	Blue and Gold	The Blue and Gold
University of Chicago	Chicago, Ill.	1890	William R. Harper, Ph. D., D.D. LL. D.	2132	180	Maroon	Cap and Gown
University of Colorado	Boulder, Colo	1877	James H. Baker, M. A., LL. D.	600	70	Silver and Gold	Columbine
University of Denver	Denver, Colo	1864	William F. McDowell	492	89	Red and Gold	Mount Olympus
University of Illinois	Urbana, Ill.	1867	Andrew S. Draper, LL. D.	1600	171	Orange and Navy Blue	Illio
University of Michigan	Ann Arbor, Mich.	1837	James B. Angell, LL. D.	3150	168	Yellow and Blue	Michiganensien
University of Minnesota	Minneapolis, Minn.	1868	Cyrus Northrup, LL. D.	2750	180	Maroon and Old Gold	Gopher
University of Mississippi	University, Miss.	1848	Robert B. Fulton, LL. D.	293	16	Royal Purple	"Ole Miss"
University of Nebraska	Lincoln, Neb.	1869	George Edwin MacLean, Ph.D., LL.D.	1653	93	Scarlet and Cream	The Sombrero
University of Pennsylvania	Philadelphia, Pa.	1740	Chas. Curtis Harrison, LL. D.	2850	242	Red and Blue	Class Record
University of the South	Sewanee, Tenn.	1868	B. Lawton Wiggins, M. A.	333	29	Purple	Cap and Gown
University of Texas	Austin, Texas	1884	George T. Winston	751	59	Orange and White	Cactus
University of Virginia	Charlottsville, Va.	1825	Paul B. Banninger, M. D.	504	55	Orange and Blue	Corks and Curls
University of Wisconsin	Madison, Wis.	1848	Chas. Kendall Adams, LL. D.	1650	115	Cardinal	Badger
Vassar	Poughkeepsie, N. Y.	1861	James M. Taylor. D. D., LL. D.	600	60	Rose and Gray	Vassarion
Washington University	St. Louis, Mo.	1853	W. S. Chaplin, Chancellor	1700	170	Myrtle and Maroon	
Washington and Lee Univer'y	Lexington, Va.	1749	William L. Wilson, LL. D.	173	18	White and Blue	Calyx
Wellesley	Wellesley, Mass.	1875	Julia J. Irvine, M. A.	662	76	Deep Blue	Wellesley Legenda
Wesleyan University	Middletown, Conn	1831	Rev. Bradford P. Raymond, D.D., LL.D.	307	35	Crimson and Black	Olla Podrida
Western Maryland	Westminster, Md.	1869	Thomas H. Lewis.	265	15	Old Gold and Olive Green	Chich-a-go-Runk
Williams	Williamstown, Mass.	1793	Franklin Carter	385	30	Royal Purple	Catalogue
Worcester Polytechnic Instit.	Worcester, Mass.	1865	Thomas C. Mendenhall, Ph.D., LL.D.	220	30	Crimson and Steel Gray	The Aftermath
Wooster University	Wooster, Ohio.	1866	Rev. S. F. Scovel, D. D.	450	20	Black and Old Gold	The Index
Yale University	New Haven, Conn.	1701	Thimothy Dwight.	2495	238	Blue	Yale Banner

David and Jonathan—A Tragedy in One Act



DRAMATIS PERSONÆ.

HON. JONATHAN SPEEDY GOAR, an up-to-date American citizen.

DAVID STEADY GOAR, his son; a college man.

SCENE:—Well furnished library of Hon. Jonathan Goar. Shelves of books L. & L. C. Entrance R. with portieres. Table L. C. with student's lamp, books and papers at which David Goar is seated, deeply engrossed in a huge book.

DAVID S. GOAR—(*Laying aside book.*) It is strange that father does not return. (*Enter Jonathan S. Goar, R.*) Ha! here you are at last! Where have you been all day? You were not up when I left for my early recitation, nor were you home for dinner.

JONATHAN S. GOAR—(*Aside.*) Guess I'm in for it. (*Aloud, forcing a laugh.*) At the races my boy; at the races. Bully day; big crowd; track fast and Leotonia won in a romp. I picked the winner of every race but one. I then bought the field, and a 30 to 1 shot landed the coin. Bully day, you ought to have been there.

D. S. G.—No, I thank you. The horses themselves may be interesting, but the influence of the low betting crowd is most degrading.

J. S. G.—But its life, my boy, its life! (*Lights cigarette.*) Saw some mighty pretty girls.

D. S. G.—(*Ironically.*) You usually do.

J. S. G.—The one I came home with was a little beauty, with the most bewitching—

D. S. G.—(*Rising.*) You surely did not come home with one of them?

J. S. G.—I most certainly did. You needn't scowl and look so disapproving. Can't a man have a little fun once in a while?

D. S. G.—(*Bitterly.*) It seems hard after I've worked and slaved at college and at home to lay the foundations for a fine career, that you should be no more of a credit to me. It is indeed hard. (*Sadly*). I had such hopes of you when I was young. Now you think of nothing but squandering time and money on—

J. S. G.—(*Throwing himself into a chair.*) O rats! (*Contemptuously.*) I suppose you would have me bury myself in some musty old book. That may do for you but, by gad! at my age it isn't enough. You'll be there yourself some day, and then maybe you'll have more sympathy.

D. S. G.—(*Gently.*) I don't mean to be hard, father, but I cannot approve of your action, and I do wish you would stop and consider what it must lead to. By the way, I have just completed a paper on "Metter-r-r-mish in France" that I would like to read to you after supper.

J. S. G.—(*Hastily.*) I'm sorry, but I must go down to the club to-night. The fellows made me promise that I would be there.

D. S. G.—(*Walking up and down with angry strides.*) Oh yes, I might have known it would be the club. It is always the club when I want to see anything of you. What do you find so attractive that you must be there every night in the week?

J. S. G.—(*Confused.*) Why—why—a man wants to see his friends occasionally.

D. S. G.—Then why don't you bring them home with you? You have an elegant home, fitted with every comfort that money can provide, and yet you can't be bribed to spend a single evening in it.

J. S. G.—I'm sorry about it to-night, my boy, but they wanted me to take a hand with them at whist.

D. S. G.—(*With darkening brow*). Yes, cards! And you will lose more to-night than I can, by severest toil, earn in a year. Father I have been steady, industrious, and saving, all my life, largely for your sake. Has it all been wasted? Is my example to be nothing to you?

J. S. G.—(*Impatiently*). But you take it so deuced seriously. What's the use of living, if you don't have a little fun out of it?

D. S. G.—(*Continuing*). I have striven to maintain our name, an honorable one, and to pass it on to posterity unsullied; and you, father, know that I have succeeded. Why then, should you be the one to drag it in the dust?

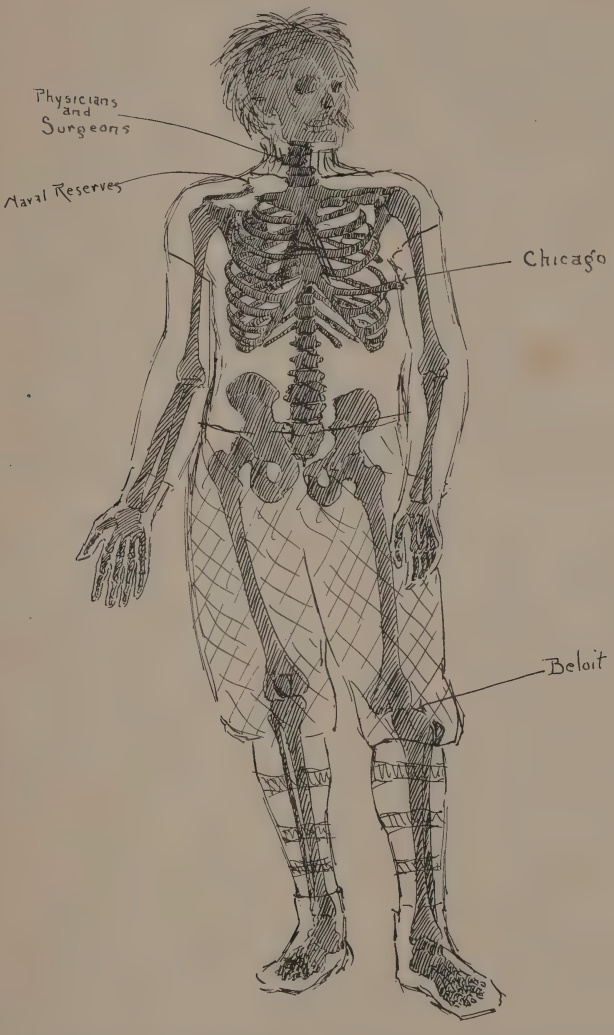
J. S. G.—(*Springing to his feet*). By Jove! I've been lectured enough. If you don't like the way I live, you can live without me. I'll go where I'll be appreciated. (*Exit angrily, slamming the door*).

D. S. G.—(*Sinks into a chair. and bows his head into his hands. Slow curtain and soft music with green lights.*)

—"Doc."




WATCH
FOR
OVR BILL
OF CONTENTS
DECEMBER NUMBER
NOW
READY
THE
FULCRUM
THE
OVEMBER
FULCRUM
IS
NOW
READY
AT THE REGISTRAR'S.
ARMOUR VS HAHNEMAN
BANKERS
NOV.
FIELD.
3PM
ead
the
FULCRUM
ovember.
W READY.
GLEE
CONCERT
THE
FULCRUM
JANUARY



An "X" ray of Hindert "X" Captain of Foot-Ball Team.

~P.S.F.~

THE EVILS OF FOOT-BALL !!!

Boarding House Geometry.

Definitions and Axioms.

All boarding houses are the same boarding house.

Boarders in the same boarding house and on the same floor are equal to one another.

A single room is that which has no parts and no magnitude.

The landlady of a boarding house is a parallelogram, that is, an oblong, angular figure which cannot be described, but which is equal to anything.

A wrangle is the disinclination of two boarders to each other who meet but are not in the same flat.

All the other rooms being taken, a single room is said to be a double room.

Postulates and Propositions.

A pie may be produced any number of times.

* * *

Secretary's Report of the 61st Meeting of the American Institute of Electrical Engineers

Chicago, Ill., June 31st, 1897.

The sixty-first meeting of the Society of A. I. E. E. was called to order by the Secretary at 8:45 P. M. sharp. Prof. David B. Gusher was unanimously called to the chair.

The paper of the evening entitled, "Effects of Lightning on the Nerves of Infants," was then read by Prof. D. B. Gusher. Afterwards the Society listened to a discussion of the paper by Prof. Gusher—at great length.

Among those at the meeting were Messrs. Gusher and others. On motion of D. B. G. the Society adjourned. The critic's report by D. Gusher was greatly enjoyed.

Prof. David Bushel Gusher, *Secretary*.

* * *

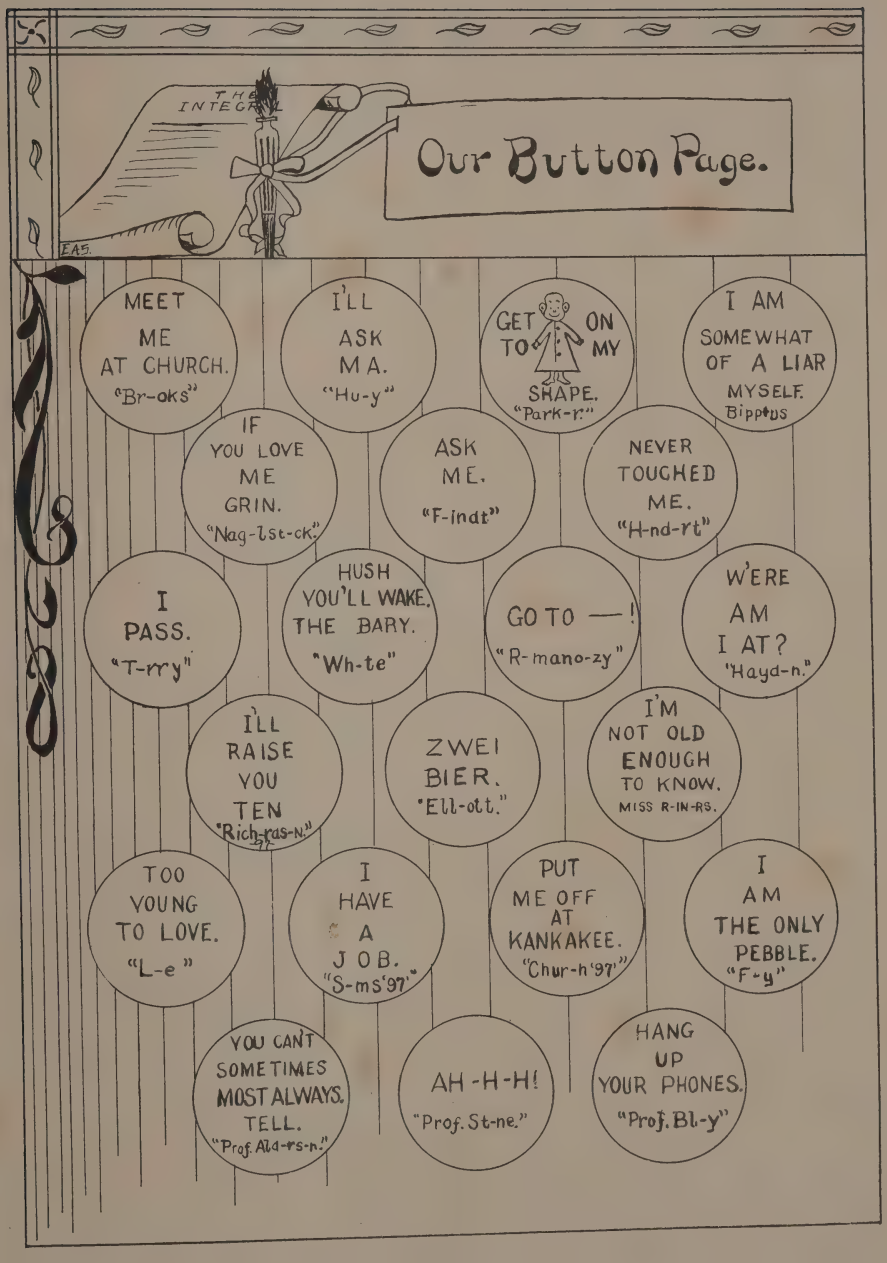
Georgie Patten
A.S.A. '94

George H. Patten
Freshman

Geo. H. Patten
Soph.

George Holmes Patten
Junior

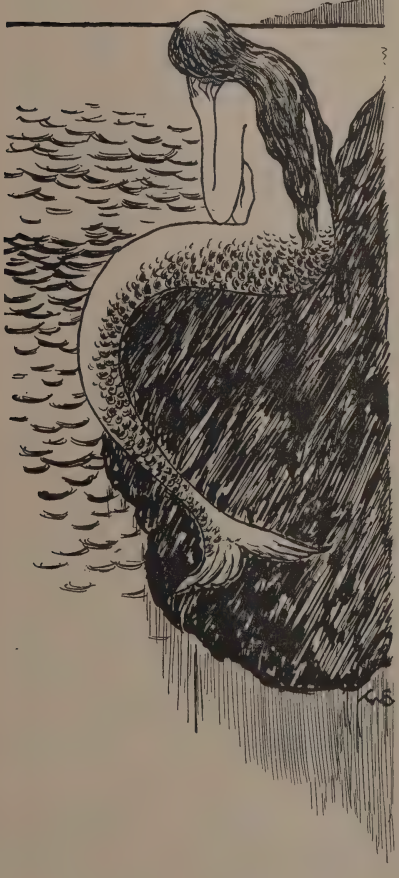
G. Holmes Patten
Senior '98


Our Button Page.
MEET ME AT CHURCH. "Br-oks"
I'LL ASK MA. "Hu-y"
GET ON MY TO SHAPE. "Park-r."
I AM SOMEWHAT OF A LIAR MYSELF. Bipp-us
IF YOU LOVE ME GRIN. "Nag-l-st-ck."
ASK ME. "F-indt"
NEVER TOUCHED ME. "H-nd-rt"
I PASS. "T-rry"
HUSH YOU'LL WAKE THE BARY. "Wh-te"
GO TO —! "R-mano-zy"
W'ERE AM I AT? "Hayd-n."
I'LL RAISE YOU TEN "Rich-ras-N."
ZWEI BIER. "Ell-ott."
I'M NOT OLD ENOUGH TO KNOW. MISS R-IN-RS.
TOO YOUNG TO LOVE. "L-e"
I HAVE A JOB. "S-ms '97"
PUT ME OFF AT KANKAKEE. "Chur-h '97"
I AM THE ONLY PEBBLE. "F-y"
YOU CAN'T SOMETIMES MOST ALWAYS TELL. "Prof. Ald-rs-n."
AH-H-H! "Prof. St-ne."
HANG UP YOUR PHONES. "Prof. Bl-y"

Identification Table

NAME	GENERAL APPEARANCE	FAVORITE EXPRESSION	MEANS OF LIVELIHOOD	WEIGHT	CHIEF JOY	AMBITION	PRESENT WORK	SIZE OF FEET	WEDDING BELLS
HINDERT, Sr.	Rocky	Minonk!	Corned Beef and Cabbage	13 Ounces	Class Pictures	Lamp Trimmer	Limping	10	Cracked
MILLER, Fr.	Irish	4-11-44	Pa	Airy	Touch Down	To Beat—Carpet	Smiling	9	Unmounted
FEINDT, S.	Alderman	Ask Me!	Face	Scales Broke	New Necktie	Get Through	Talking	8	Clapper Gone
HUEY, Jr.	Kiddish	Dear Me Suz!	Tinker	∞	Eating	Motorman	Meditation	7	Needs Oiling
MANHEIMER, A.	Grecian	Hit 'Er Up!	Prizes	10 Stone	Mystery	Grow Sidewise	Flunking	6	Too Young
BLODGETT, Sr.	Frisky	Don't Know, Professor	?	14 K.	Working Profs.	None	Mustache	5	Sexton Asleep
PARKER, S.	??????	My, Oh My!	W. U. T.	3 T.	Hot Weather	1900	Working	4	Receding
GREEN, Fr.	Depends	Rosa, I Want You	Duke's Mixture	Gaining	Chasing Beer Wagon	Pater Familias	Lacking	3	Rusty
PORTER, Jr.	Feminine	Gee! Fuz! Golly!	Hair	1 Ampere	Burfa	Get Married	Making Mistakes	2	Stuck
WHITE, Jr.	Crazy	Not For Print	Gall	5 Inches	Sleep	Buried	Play	1	Rope Broke
LEEPER, Sr.	Millionaire	Say, Mister	Chemical Lab.	8 Seconds	Bath Tub	Street Car Rides	Blowing Fuses	0	Coming by Freight
SHUBART, Jr.	Pop	Bryan	Objecting	Of No Figure	Bluffing	Ward Healer	Bluff	—1	Tolling

THE COLOR QUESTION.



A mermaid sat on a dark blue rock,
And gazed at the sky and sea
All yellow, as yellow as gold, were they,
And green, and so was she

She thought of the oceans pearly caves
And her heart grew cold and sad,
As she sighed for the beauties lurking there
Before the poster fad.

For then the ocean was deep sea green,
And the sky was a tropical blue,
And yellow-green mermaids were never seen,
And rocks wore a natural hue.

Then she pondered, "Why is all this,
"Oh why should the poster be,
"And why should my hair be olive green,
"And why so yellow the sea"

Long she pondered o'er the question,
But no reason could she find.
And so with a flop of her tail, she sank
'Twas a query to deep for her mind.

A Geometrical Love Story

There were once two angles, Al Ternate and Polly Gonn, who fell in love with each other—not a remarkable co-incidence.

Al was a straight, solid fellow and an upright young man—his friend a cute little maid and possessed a trim figure. With reference to their generation they were in the noble family of Revolute. They were so fond of being adjacent that it was decided that their planes should extend in the same direction.

They delighted in going to the woods, whither a diagonal path led them. Al was in his element when, as the exterior angle, he gathered flowers with Polly. At such times the inclination of the faces was very noticeable, especially when one proposition after the other was considered and the problem of their future relationship was discussed.

The two were fond of attending lectures, and those given by a certain noted traveler, Geo. M. Etry, particularly interested them. This angle told them of pyramids, cones, mountain summits and dizzy vertical heights which he had climbed, and of the vast area of the plains he had explored.

Circus day was a happy one for Al and his girl. A large space was cleared in an equilateral park and a circular tent was erected, in which the performers were ranged in a long broken line. Opposite, in the center of the tent, a tall angle swung on a trapezium. This greatly delighted the spectators, who shook their sides with laughter, thus demonstrating their approval of the daring feat.

These happy days came to an end when Al left home to attend school in a town some miles distant.

Rule IV in the laws of the institution required that every letter be inspected by the Superintendent before being received by the pupils.

Of course Al and Polly would be corresponding angles, and would have to obey this base rule, so they devised an accurate cypher system to meet the emergency at this point. For example, when Al wanted some of Polly's pie, he simply put the π sign in the corner of the envelope, and in 3.1416 days a section of Polly's culinary product was the result.

Now, this young lady had a brother, Horatio, generally called Ratio, who, like most boys, was wont to tease his sister. When he went to extremes about Al and her she invariably said: "I think you are real mean, Ratio; you know that he and I are similar, and care only for each other, and that we are mutually agreed." This silenced him.

At the conclusion of a year Al hurried home at a rapid rate. As they were to be married soon, they planned for the erection of a new house. The lovers proudly watched the carpenters with their wedges, compasses, squares, planes and other tools construct the projecting balconies and other parts of the house.

The dining room was constructed in the form of an octagon, and the whole was laid out from up-to-date plans.

One workman was so unfortunate as to let fall a line, which pierced a little plane in its foot, so he was promptly discharged.

In the spacious back yard Polly soon made flower gardens, and surrounded them by great and small circles of poles.

When everything was completed, Al and Polly were joined in wedlock, and from that day they were the most contented angles on the surface of the globe.



RANDOM SKETCHES FROM A WEEKLY SHEET ILLUSTRATING INSTITUTE LIFE.

THE QUICKSILVER



To Willie

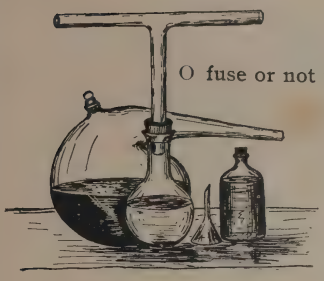
"Willie! Willie! Can you say
Whether or no Miss B.'s here to-day?"
"Has the class come down from Latin?"
"Have you seen Feindt, or Mac, or Patten?"
"Does the Senate meet to-night?"
"Where will I find Miss Carrie Wright?"
"When's school out, Billy, I'd like to know?"
And thus, questions fly as thick as the snow.
He's press agent, news center, lays hold of all tidings
Which no *Fulcrum* agent could coax from their hidings.
Billy will some fair day be renowned,
For the kings of the future he hauls up and down.

To Alec



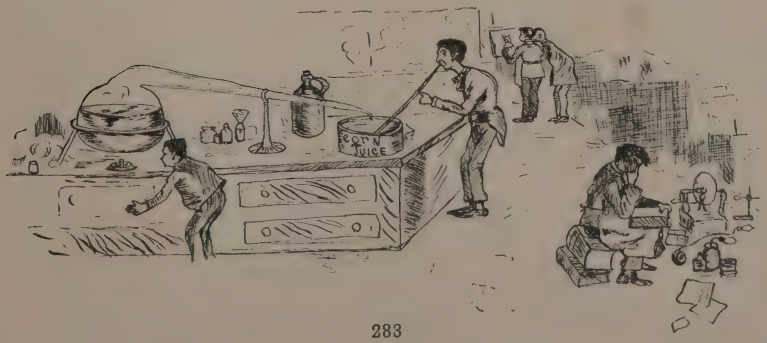
We've apparatus by the ton, and books of every kind,
And every known facility to elevate the mind;
We've professors by the dozen, from every shore and clime,
But only one good Alec to always make things shine.
Unlike our learned professors, he comes with brush and pail,
And clears the dusty, cloudy path, where *they* so often fail.
Alas! Good Alec, won't you try, with all your might and main,
To see what you can do to clear the cob-webs from our brain?

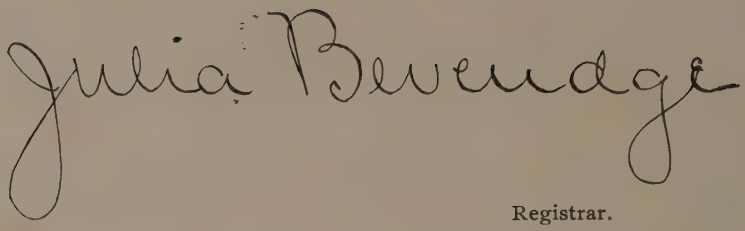
Student's Soliloquy in the Chemical Laboratory



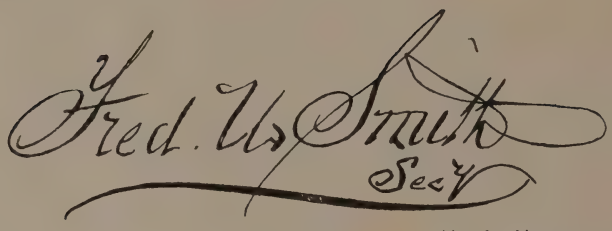
O fuse or not to fuse, that is the question:
Whether 'twill be better in the end to mix this unknown with Na_2Co_3 and KNO_3 and fuse,
Or to throw it in a beaker and, by adding acid, thus get it into solution—to dissolve—to test.
No more;—and by these tests to say we break up
This unknown, and find out all the acids and bases
That are in it—'tis a consummation
Devoutly to be wished. To dissolve—to fuse—
To fuse! Perchance to break the dish. Ah! There's the rub;
For by that fusing, what increased laboratory fees we may find,
When we have shuffled out of this chemical lab.,
Must give us pause. These are the thoughts
That make tedious so long an afternoon;
For who would fool with hydrogen generators,
Solutions which will not precipitate,
Precipitates which will not dissolve,
Unsatisfactory tests,
And the sarcastic smiles that the meek student
Of the haughty professor takes,
When he himself might a good time have
By slipping out of the chemical lab.?
Who would work for four long hours,
To grunt and sweat under a cloud of fumes,
But that the fear of failure at examination time,
When unanswerable questions will puzzle the brain,
Makes us rather bear the ills we have
Than fly to others that we dread more?
Thus discipline does make slaves of us all;
And we students who might otherwise try to get through without labor,
Stand glued to our desks and with test tube in hand
Vainly look for a satisfactory reaction.

MAMIE T. GREEN.





Registrar.



To the Trustees of the Institute.



Secretary to the Institute.

THE SIGNATURES MOST FAMILIAR TO THE INSTITUTE ATTENDANTS.

Shubart Free Silver Club

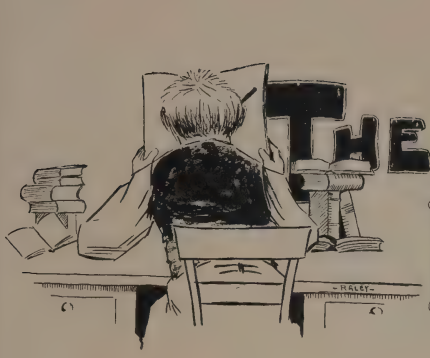
President—B. SHUBART Vice-President—B. SHUBART

Secretary and Treasurer—B. SHUBART Campaign Manager—B. SHUBART

Orator—B. SHUBART

Chairman Executive Committee—B. SHUBART

Members—B. SHUBART



The Way It Goes



HEN Tom and Bill were baby boys
Infant Bill
Was fretful, squally, full of noise—
Homely Bill!
Redheaded, 'twas a fact.
From morn till night his parents racked
To keep his neck from being cracked—
Troublesome Bill!

As he grew older folks would say
Lazy Bill,
But naught he'd care, it was his way,
Shiftless Bill!
He'd spend his time in idle joys,
And put his jobs on other boys,
Poor fools, that followed his decoys,
Scheming Bill!

And when the boys to college went,
Foolish Bill
To grinding work no interest lent,
Hopeless Bill!
While Tom was quick and apt to learn,
And said bright things at every turn,
That made the slow with envy burn—
Sluggish Bill!

School life was done with all its joys,
Thankful Bill;
And business life claimed both the boys—
A chance for Bill!
Tom made a noise—a stir—you know,
But somehow it ne'er seemed to go,
While close mouthed Bill raked in the dough.
Knowing Bill!

The years have come and gone away
For Tom and Bill.
Tom keeps a set of books each day,
And Bill
Has office hours from 10 till 2,
He's looking for new worlds to do,
He owns a block, a bank or two—
Incomprehensible Bill!

—Al. Dunlap.

Where we are at.

R.J.R.

Not many years ago there was a cabbage patch at Thirty-third and Dearborn Streets. More recently it has been moved further West.

The refining influence of good associations is, perhaps, nowhere better illustrated than in our own instance. Our respected fellow townsman and oldest inhabitant, R. Fry, professes a distinct recollection of the time when the surroundings bore a vastly different aspect.

Indeed, the time is not so very remote when the site now occupied by our Institute was covered by a wild, wind-swept stretch of prairie, relieved by giant ferns. Here the gay and festive dinotherim hunted the fierce and woolly ooglywoo; here the mound-builder pursued the agreeable but elusive megalonyx; here succeeding generations of dark-skinned savages strove to make hair restoratives unpopular, and here, in more modern times, the lamb trod the dangerous path between the rampant bull and the depressing bear.

Gone are dinotherim and ooglywoo, the megalonyx is scratched from our visiting list, the mound-builder exists only in ethnological text-books and the Pottawattamie has found a last resting-place among the statuary at Lincoln Park, while lamb and bear and bull have been driven to the narrow confines of the Stock exchange and Board of Trade.

Where generation after generation fought and struggled and strove to make one another their daily bread and meat our alma mater rears its stately head. Nor is it the only indication of the advance of civilization. Directly behind our building the constant stream of traffic and friendly exchange flows on; with melodious tooting and pleasing emphasis the 2:19 slow freight warns casual pedestrians to keep off the track; the Kankakee and the Kokomo 9:43 special hurries by with abundant tintinnabulation and creates a pleasant moment of distraction in the lecture-room.

Just beyond the tracks a sculptor of sidewalks and curbstones plies his trade. The drowsy hum of the saw as it eats down into the limestone fills one with a delightful sensation, which may be duplicated by masticating sand. The constant click of the mallet, the puffing of the engine, the blowing of the whistle at noon all testify to the startling advance toward refinement. How good it is to watch the sculptor resting from his toil at noon, how firmly and sturdily he grasps his dinner pail, with what alacrity does he gather up his paraphernalia and hasten cornerwards—pail in hand.

But when the weather is pleasant other notes than these enter into the symphony of our daily life. Frequently the perambulating son of ancient Hellas or the scion of the City of the Seven Hills, with simple melody and soft inflection, offers to us of the stern and rugged North, the luscious fruit of the banana tree or the succulent berry of the peanut vine.

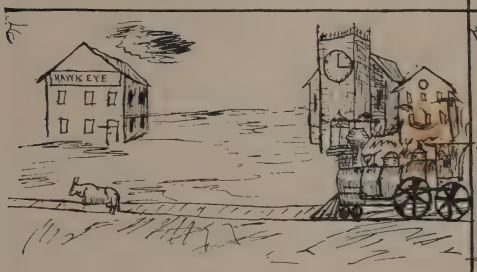
That's where we are at. Come and see us.



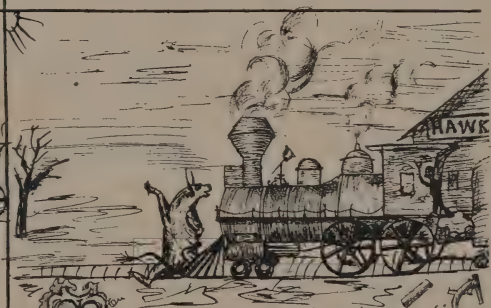
Switch engine "Louisa", B.C.D. & M.
Was blowing up Front Street, about 3 p.m.
When the stoker looked out of the window to say
"There's a cow going across the track hay"



Shrilly the whistle shrieked for her alarm
And the stoker threw firewood & coals in as warm,
But the cow never heeded nor thought that her fate
Was setting at four miles an h-o-u-r



Pensively halted the cow on the track
Burrs on her pendant tail, bran on her back
Dreaming of Summer, she seemed not to see
The approach of the switch e-n-g-i-n-e



The switch-engine struck her about amidships
And her summer dreams ended in total eclipse
It mangled her carcass most shocking to see
And threw her down Front st-r-double-e-t.



Once more the stoker spoke "There she is now"
Gruffly the engineer quoth "for the cow"
"Cold, reversing his engine he cried Shoo! oh! shoo!
Said the stoker, "oh! shoot the see-ohl-double-you-e"



Sadly the engineer drew in his head.
And pulled her wide open as onward he sped
But the stoker smiled darily "Old Fellow" said he,
"There's some cheap Porter-house st-a-k-e"

This is not the way to spell porterhouse steake but the other way wouldn't rhyme. — Author

ORIGINAL VERSES AND SKETCHES BY ROBERT J. BURDETTE
The manuscript being loaned by a student of the Institute



RONEY—(*In English*). "What is a synonym?"
CLARENCE—"It is a word you can use in place of another, when you don't know how to spell the other one."

"From mad dogs and grumbling Profs. may we all be delivered, and may we never take the complaint from either of them."—MECH. CLASS.

FISHER '00—(*To Prof.*) "Can you use the milli-voltmeter as a milli-metre?"
TOUSLEY—"No. But you can use it as a centimetre."

MUEHLMANN—(*Translating German*). "Die sack was aufgebunden." ("Tie the sack open.")

HIGGINSON—"Did you connect the telescope in series with the voltmeter and series box?"

"What thin partitions sense from thought divide."—THE SENIORS.

"Oh! What funny bloomers!"—TARBELL'S, at the Mech.-Elec. game.



MacClyment is a man of wheels,
Who shrinks at sausage for his meals;
Since, cycling on the boulevard
He killed a pug-dog that died hard.

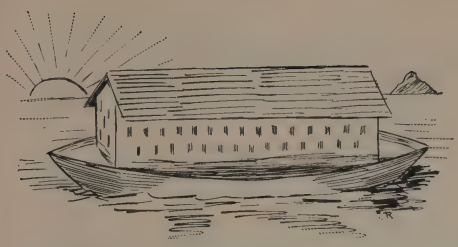
Fleet-footed Bippus—sprinter fine,
Has his own rapid transit line;
The cinder track he plows with might,
The judge's verdict, "Out of sight."

"Though it makes the unskillful laugh, cannot but make the judicious grieve."—SMOKE RINGS.

"They always talk who never think."—'00.

"There was a sound of revelry by night."—PARAGRAPH CLUB, Jan. 17th.

"With mug in hand to wet his whistle."—WHITE.



THE first mention in history of the arc light is that contained in Genesis.

EXTRACTS from Huey's new drama, entitled: "Ten days in a blacksmith shop, or who threw the wet towel."

ACT I. Scene 2—"Do you suppose we will ever be able to run one of those trolley cars, Brock?"

ACT X. Scene 4—"In those days they used to transplant teeth."

Same act. Scene 5—"The great, hopping jay birds!"

ACT X. Scene 28. HERO (passionately)—"The postal service was growing when she was there. Five mails passed over the Potomac daily. I have forgotten how many females."

ACT XII. Scene 13—"Why, dear me! The people come way over from the lake to take these cars."

"It is a condition which confronts us, not a theory."—UNHAPPY WILLIE.



A COW belonging to one of John O'Leary's relatives once kicked over a lamp and said: "There'll be a hot time in the old town to-night"—and there was.

"ALL the learned and authentic fellows."—FACULTY.

"I BELIEVE they talked of it for they laughed consumedly."—SENIOR ELECTION.

BLEY'S message to Huey when he sent the latter's plate back to him with thirty-one corrections: "Look over carefully for sins of omission.—J. C. B."

"HAVE the morning paper served for breakfast?"— MCCLINTOCK (speaking of the great advancement of the present age).

PLACE, senior hop; time, 3 A. M.; temperature, 210 in the ice chest.

SIMS (noticing Good's white belt)—"Why, what is that white streak around your waist?"

GOOD (languidly)—"Oh, that's only my collar melted and run down."



"HIS wit invites you by his looks to come, but when you knock it never is at home."—BLEY.

"DROP me a perpendicular up."—FELDMAN.



Design by
C. T. Malcolmson
on cover of
Senior Hop Program of '97

With Our Reviewers

Everyone
should have a
copy of
THE YEAR BOOK
published
by '99
Issued annually occasionally

Read What the Reviewers Say

It is rich in humor and abounds in pathetic passages.—A. L. IAR.

I have used twelve copies of the book and gained eighteen pounds.—R. ED. HEN.

I have never seen anything equal to it before.—NERO.

As a reference book it is especially valuable and I gained many good points from it.—BOB FITZSIMMONS.

For spicy reading and as an evening's entertainment it has no equal.—GROVER CLEVELAND.

The subject of fraternities and their uses was a very interesting portion of the book.—W. F. SIMS, A. I. T. '97.

Several other well known critics have also contributed reviews and the book has already reached its first edition.



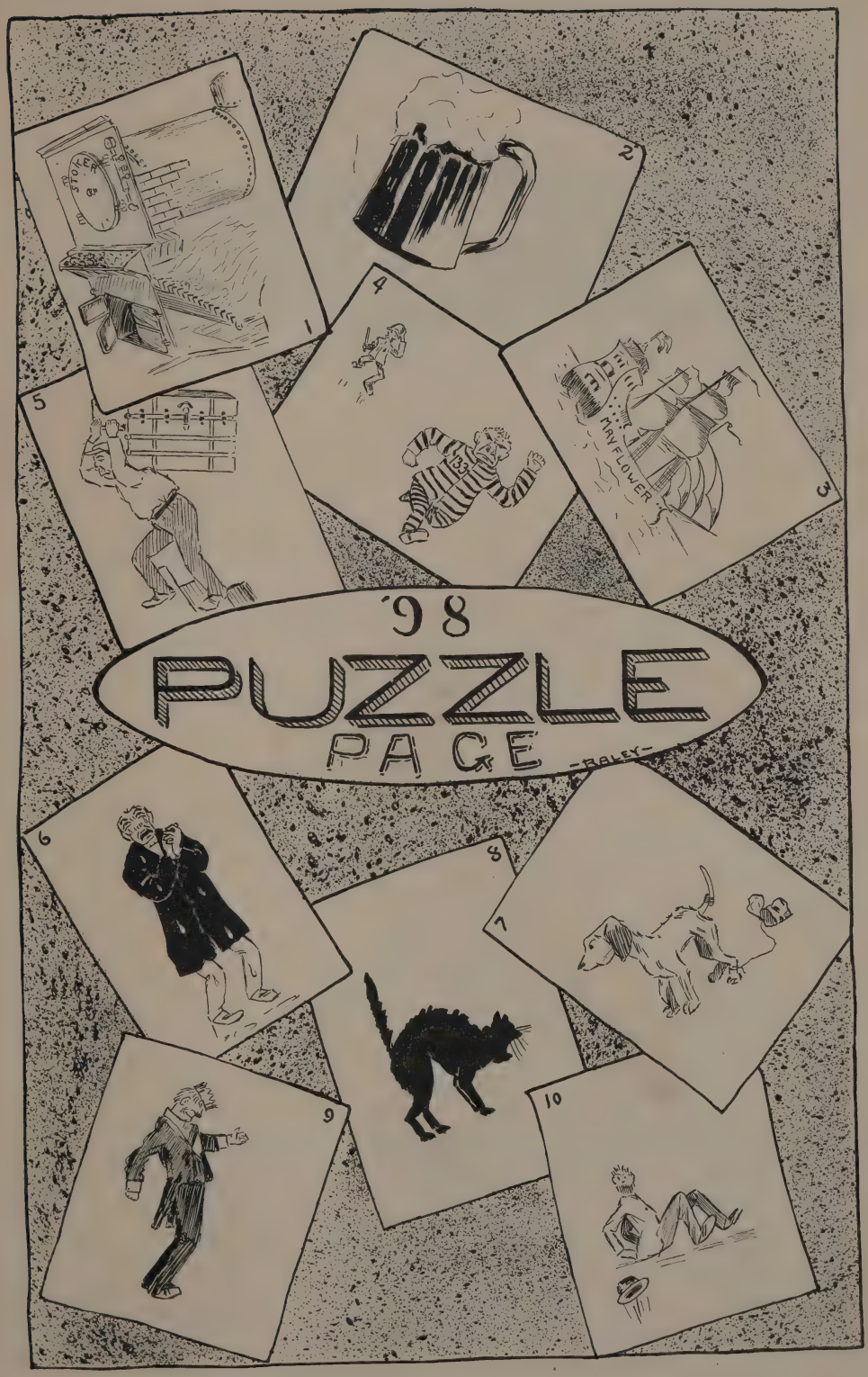
THE THUMB-TACK CLUB OF G·S·A·

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G·L·SLUTTER
E·STECK
H·L·WALKER
V S·WATSON



"YOU WILL FIND HERE THE NAMES OF TEN OF OUR TEACHERS—GENTLEMEN ALL—WHO LEAD THE COLLEGE CLASSES"



(BY E. L.)

If you pine for integration,
Or for infinite summation;
If it has a fascination
Which is permanent and great;
There will come a dread probation
When there's no illumination,
There will follow execration,
'Ere you learn to take it straight.

For the form of the relation
First demands consideration,
And requires manipulation
At a very early date.
But to save yourself vexation,
Make your woe of short duration;
Heed the simple emanation
Of a brain of poise and weight.

You'll avoid all botheration,
You will reach your destination
In a spirit of elation,
If you fix and integrate.

"Melange"

FIRST FARMER—"How is your boy getting along at school?"

SECOND FARMER—"Wal, I be proud of Jim; the very first time he came home he wore a pin with '99 on it."

"I have married a wife and therefore cannot come."—RALSTON, Ex. '99.

FREEMAN—"Mr. Corey, please define a *dyne*."

MR. COREY (awakened from sound slumber)—"A dyne is the force done by a mass of one centimeter acting through a distance of one gram; or rather, it is the work done by a mass of one second acting through a distance of one erg in a space of time equal to one centimeter."

SENIOR—"Do you know why the Armour Institute of Technology is a learned place?"

JUNIOR—"Of course; the Juniors bring a good deal of learning in, and the Seniors never take any out, so it accumulates."

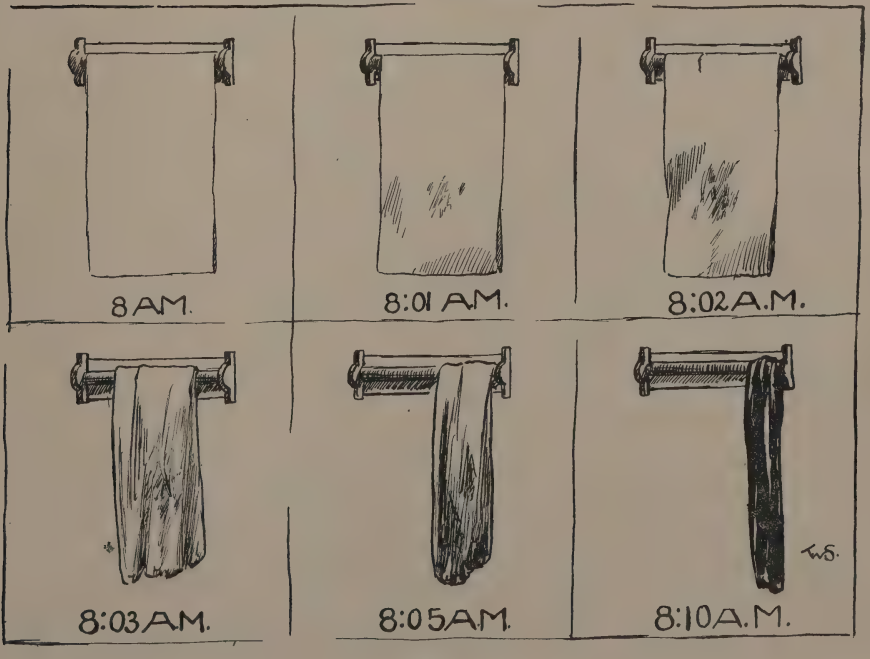
WANTED—The address of the Coleman sisters.—GARCELON.

INSTRUCTOR IN HISTORY—"For what are the Romans chiefly responsible?"

FRESHMAN—"They understood Latin."

"It cuts no ice how oblique the cylinders are."—PROF. ALDERSON.

OUR TOWEL.



Editorials

IT MAY SEEM STRANGE to some that a space has been given to this department, especially as other annuals are in the habit of omitting it. Sufficient to say, however, that we are not laying out this book according to the forms of other schools, though they may be older, nor are we bound to follow the customs or drag along in the ruts of others. We believe that those who pursue the narrow, hedged rules of sophisticism are the ones who generally do not advance very far; that those who do things in a certain way because others do it that way, will lose; that those who do the same old thing in an original way even though that way *may not* be the best, are taking a step in advance and dealing a blow to retrogression.

THIS SCHOOL YEAR has seen a greater advance in the development of a school spirit at Armour than all of the four preceding years combined.

Athletics and the musical organizations are drawing out more and more enthusiasm each term. The older literary organizations are holding their own and new organizations are rapidly being formed.

The organizing of the Paragraph Club last year seems to have been the key which opened the way to other student secret organizations, and this year has witnessed the birth of two others, one in the academy, one in the college.

"The Fulcrum" has added a new feature to the school and supplied a long-felt want, and lastly the work on the "INTEGRAL" has called forth a great deal of interest among the students and had a tendency to keep several of the boys out of mischief.

It has been the cry of the past that school life at Armour was practically dead, or rather that it had never been born. While this may have been the situation it is no longer true. Let us put forth our best efforts that it may never again be true. All that is necessary is that the different organizations should pull together. This ought not to be such a hard task.

THE BEST WORDS that any one could say for Armour Institute of Technology would be "refer to the Alumni."

It is a well known fact that any institution of learning can become great in so far only as its alumni make it great. A college might have the best instructors procurable, yet if its students on

completing their college work are not equal to the task which the world will, and has a right to, demand of them in their line, then that college has failed in the only function for which it has any excuse for being. In this respect Armour has been particularly fortunate. The class of '97 entered the school at its opening and naturally were subjected to the experiments which a new institution necessarily forces on its students until the best policy has been acquired. Notwithstanding this circumstance the members patiently pursued their way, and are now reaping the reward for their labors. The majority of them are occupying profitable places of trust and responsiblity and are giving good satisfaction;—a good advertisement for the school and an unwritten vote of thanks to the instructors whose influence will be felt through future generations.

* * *

WE KNOW OF NO BETTER PLACE than this to give mention to the names of some of the ex-Armourites who left us to pursue their studies in other colleges, or to engage in practical work.

Mr. W. Tudor Apmadoc, author of the "Armour" song, after leaving us took a course in law at Ann Arbor, and is now practicing in this city.

Messrs. S. O. Swenson and Thos. Wray are at Champaign, Messrs. W. H. Feindt and W. R. Weidman, two of our former athletes are attending the University of Michigan. Messrs. J. R. Brownell and L. F. Florsheim are at the Massachusetts Institute of Technology.

Mr. B. B. Greer is at Dartmouth College; Messrs. J. C. Broeksmit and J. W. O'Leary are at Cornell; Mr. J. B. Prettyman, who was compelled to quit on account of sickness is now preparing to leave Klondike as agent for a Transportation Co.

Mr. S. S. Posey ex-'97, is located at Austin, Texas; Mr. J. A. Masters is president of the Jamestown Electric Light and Power Co. at Jamestown, N. D.; Mr. J. A. Wiley is with the firm of Marshall, Field & Co., City; Mr. J. T. Wadsworth is keeping books for the Illinois Steel Co., at South Chicago; Mr. Wm. Ralston is engineer for the O'Leary Foundry Co , City; Messrs. R. T. Rogers and H. M. Ashby are attending the University of Chicago; Mr. R. N. Stewart is Electrical Inspector for the City; Mr. E. A. O'Connor is in Mexico, engaged in engineering work; Mr. Blatchford Kavanagh is with the firm of Lyon & Healy, City; Mr. H. J. Gates is superintendent of the Oakland (Cal.) Consolidated Street Railway System; Mr. E. M. Montchyk is attending the University of Colorado at Boulder, Colo.; Mr. James Neilson is with the firm of Westinghouse, Church, Kerr & Co.

HE kissed her, and low sunk her head on his breast,
While loud beat his heart 'neath his still louder vest.
In emotion her bosom full swift sunk and rose,
While she wept it all on his new Sunday clothes.
His heart, once so gleesome, now quickly grew sad,
For these were the very best garments he had.
But soon through his bangs did an idea shoot,
Oh, joy! Without price he was pressing his suit.

A MAN named Darwin stole some sausages, but the missing links were recovered.

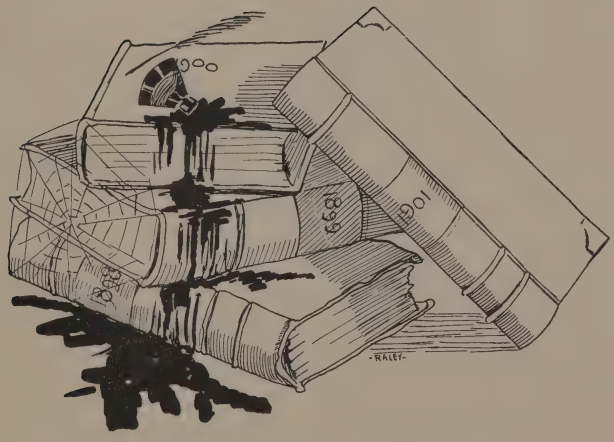
PROF.—What are the primary colors, Mr. Smith?
MR. SMITH—The sun, moon and stars.

PROFESSOR IN CHEMISTRY OF COOKING—What two fruits go best together?
MISS C—A *date* with a *peach*.

HUEY was tinkering with his bicycle one day, and caught his hand in the sprocket wheel, lacerating the latter quite severely. During the Electrical lecture the next day, he roused us out of a sound sleep and explained that he had been traveling "incog."



"The glass of fashion and the mould of form."
SHAKESPEARE.



Roster for 1897-98

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BACON, ROBERT H.
BAER, CAMILLE
BAKER, ADELAIDE A.
BAKER, MRS. ALICE
BAKER, EARL H.
BAKER, ELIZABETH
BAKER, MARY F.
BAND, ELIZABETH H.
BANDER, OSCAR W.
BARRETT, GRACE A.
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BARTHOLOMEW, FRANK L.
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BLANCHE, MAGGIE
BLIGH, KITTY
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BLUMBERG, JOSEPHINE
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BREMNER, MARY G.
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BROWN, LEOTA L.
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BULLOCK, BERTHA
BUMFORD, L. H.
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BURROWS, EUGENE W.
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ARNOLD, MARK H.
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ASHBY, WINIFRED M.
ASHTON, GERTRUDE W.
AUSTIN, LULA C.
AXEN, CHARLES A. V.
BACH, ADELE I.
BACHRACH, MATTIE G.

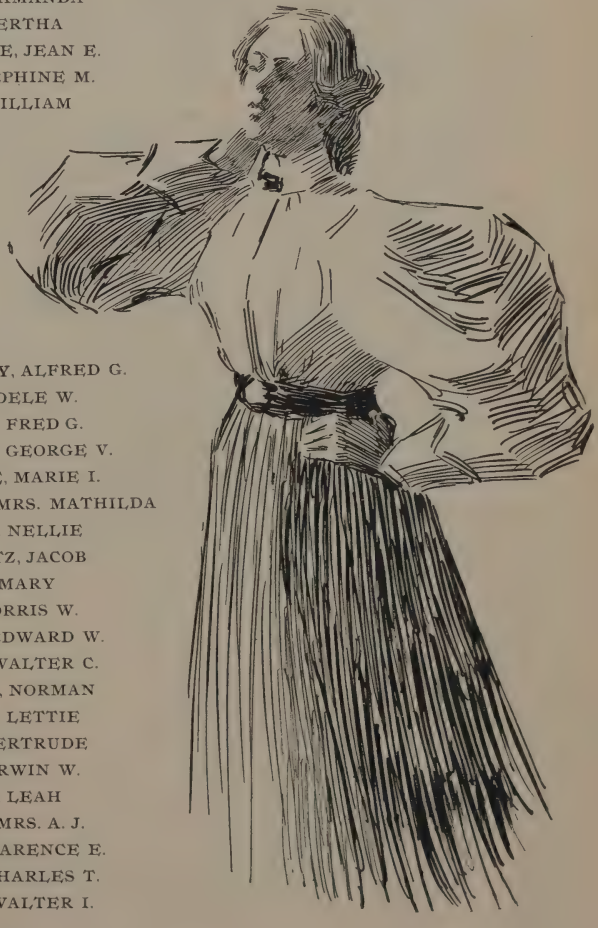
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CARLSON, MARY H.
CARR, HELEN E.
CARTER, ALPHA J.
CASEY, CHARLES M.
CASTRO, CECILIA
CHAMPLIN, HENRY C., Jr.
CHAPMAN, FLORENCE V.
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CHASE, REYBURN T.
CHESTER, LUCY M.
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CLARK, EDGAR W.
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COBB, LAULA E.
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COHEN, LOUIS
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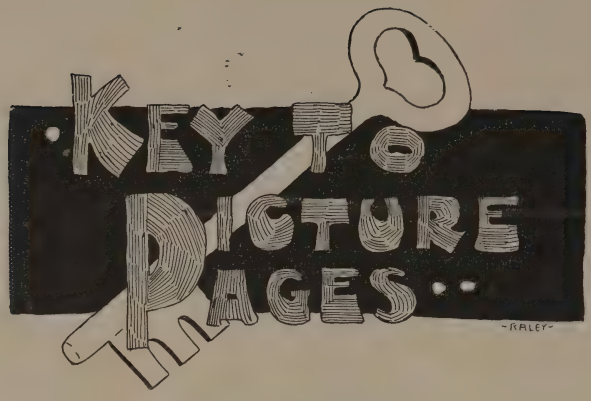


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Class of '97

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Rice Perry Richardson Sheibley Chapman Sims Sloan
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Loney Malcolmson Freeman Derby
Prenner Wheeler Salamson

Juniors

PAGE 71

Goodhue Olson Schroeder Hanai Burr Huey
Dean Warren Johnson Terry Fiddyment Wilhoit Rimanoczy Beattys
Lewis Ransom Lyman Bippus Powers Marienthal Pavey Mahler
Twichell Corey White Gordon Roos Lee Starkweather
Shubart Porter Tarbell Morse Matthews Elliott

Class of '00

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Muehlmann Longnecker Bradley Slovsky Higginson Garcelon Parker
Feindt Graff Harvey Low Tousley Hayden Hausmann
Heald Steck Walker Edbrooke Fisher Taylor Watson Zimmerman

Freshmen

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Krehbiel Palmer Davenport Parsons
Bond Millspaugh Fry
Swope Raley Bartholomew
Miller Howard Lindberg Axen Reugnitz Green Bernhardt Swift Rochlitz
Langworthy Noble Baker Pierce Eustice Colburn Smith Chase
Stevens Lewis Bear Lillienfeld Brooke Baker Beers Nachman Cohen

Class of '98, A. S. A.

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Collins Wachs Lang Wormser C. Hart Brooks Cohn
Willis Hunter Garrison Rockener Young
Andrews Putnam M. Hart Keene Greenebaum Hess Pfordresher
Weiman Vreeland Maher Day Harlan

Class of '97, A. S. A.

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Pierce Ray Herron Hamlin Fry Baker
Cohen Smith Lewis Shaw Brush Holman Buchman Ryan Livingstone
Langworthy Veatch Fairman Florsheim Rosenbaum Austrian Crandall
Campbell Bacon Stevens Loeb Wallace

Senate

PAGE 99

MacClyment Lyman Tarbell O'Leary Bippus
Roos White Matthews Schroeder Porter Mahler
Johnson Starkweather Gordon

Paragraph Club

PAGE 105

Roos White O'Leary Starkweather Matthews
MacClyment Gordon Sloan Malcolmson Hayden Glover Patten
Feindt Brownell Bippus

The Technical Society

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Twichell Low Rimanoczy Montchyk Patten Flanders Hayden White
Malcolmson MacClyment Sheibley Burr Bippus Loney
Johnson Hindert Weinsheimer Starkweather Olsen
Roos Sloan Chapman Matthews Beattys Freeman Derby
Perry Sims Glover Hall Manlove Hanai Rice

Base Ball Team

PAGE 139

Brooks Miller Gay
Graham
Dunning Frasier
Harlan
Morris Fairman Ibsen

Foot Ball

PAGE 145

Patten Loeb O'Connor Terry Fiddyment Schroeder
Fish Butterworth Palmer Tarbell Shand
Robinson
Harlan Brooks Miller Turtelot Fry Brooke

Track Team

PAGE 151

Tarbell
Shubart Longnecker
Weidman Rogers Ashby
Fairman Warren

Commercial Department, Class '98

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Conley Dettelbach Clark McLean Porter Brendecke Nash Rhoten
Clough Sullivan Dandurand Quinlan SoRelle
Fortiner
Forrester
Engholm Morris Gunderson Martin Lanz Bransfield
Nixon Lancashire McHugh Lovgren Tourtelot Brush Freund Handele

Commercial Department, Class '97

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Collister Brendecke Conley Maw Unger Bourque
Mayer Jessie Bailey Reese Sullivan Dunning Kelly Rhoten
Olsen Foster Getzelman Silverstein Knutson Burleson
Lawrence Kenyon Tullock Budge Mrs. SoRelle Lillian Bailey Gunderson Brush
Schiefferstein Shubach

'98 Kindergarten Normal Class

PAGE 185

Largest single group picture on this page.

Doyle Baxter Cost Martin Ewing Graves Johnson Tinsman
Panabaker Hood Thiell Scates Dolling Shumway
Smith Reeve Hoyle Chester Finch
Brainard Schindler Sly McDowell Bryan Fuller Parkhurst Whitmore
Taylor Wood Inglis Chapman Raymond

Thumb Tack Club

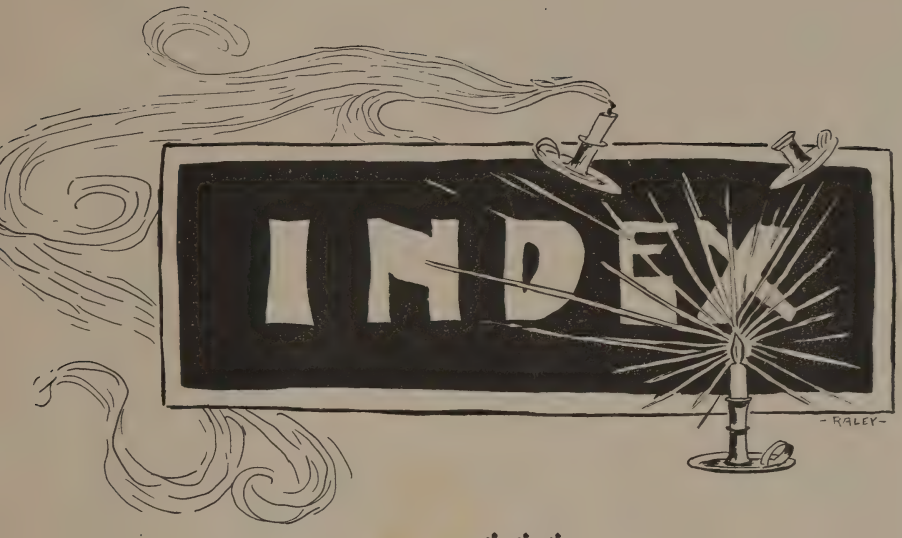
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Henne Marienthal Paradice Benedict DuBois Porter Steck
Bartholomew Fairman Morris Powers Alban Gordon Alschuler
Watson Harmon Walker Pattison

Board of Control

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Hayden Bond Morse Warren Bippus
Longnecker Feindt Prof Alderson Patten
Brooks Thomas Miller

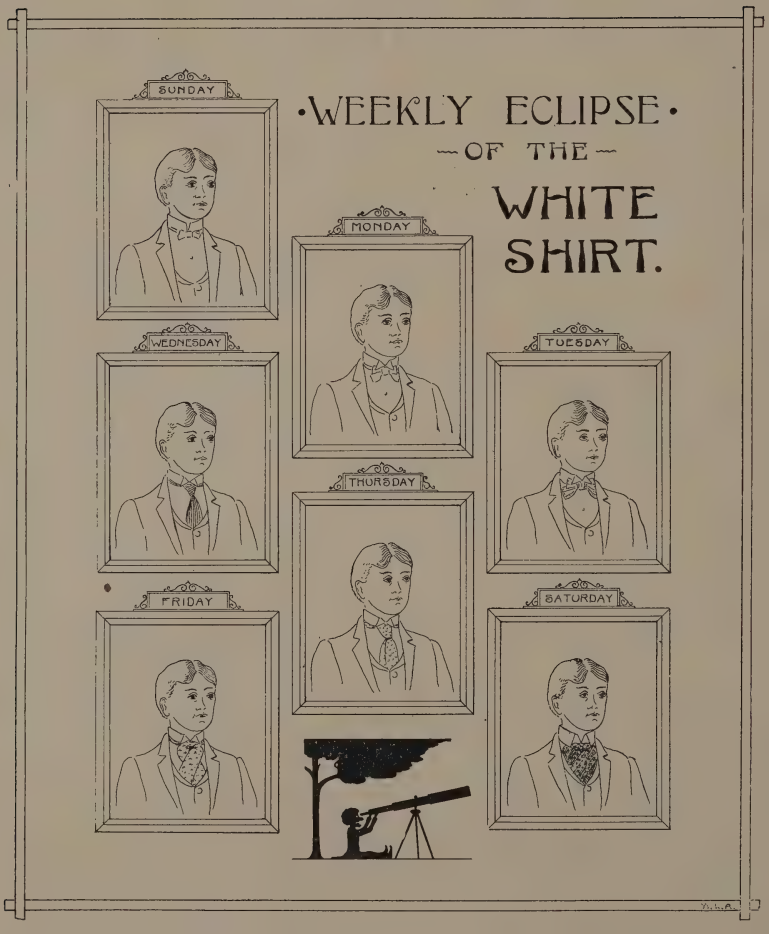


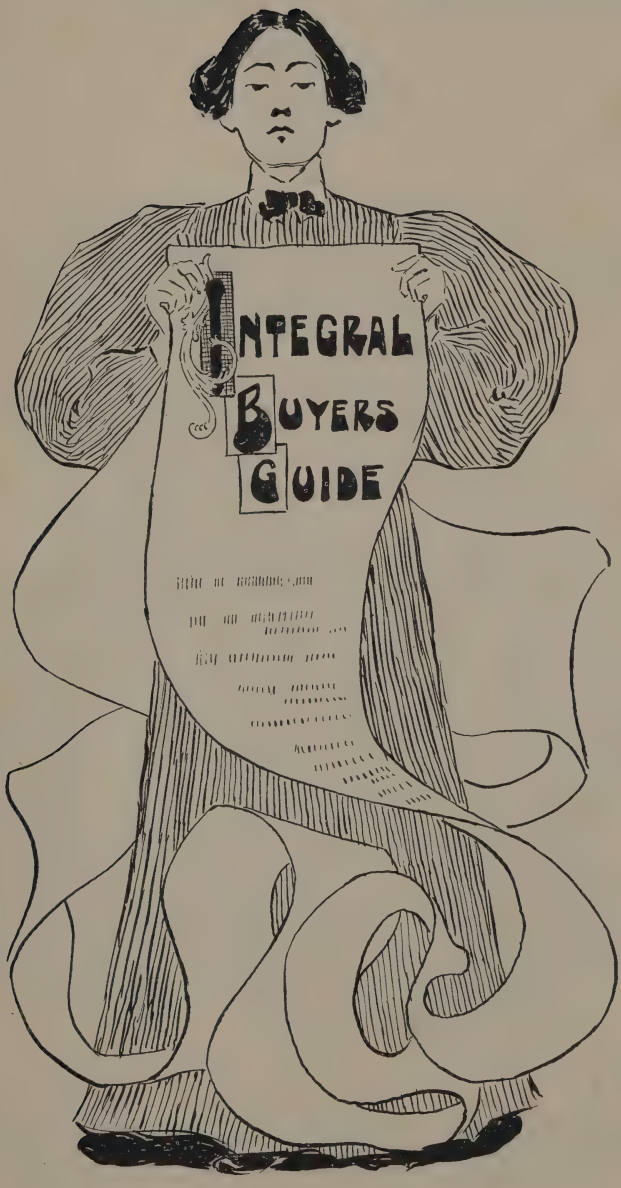
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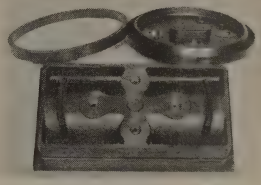
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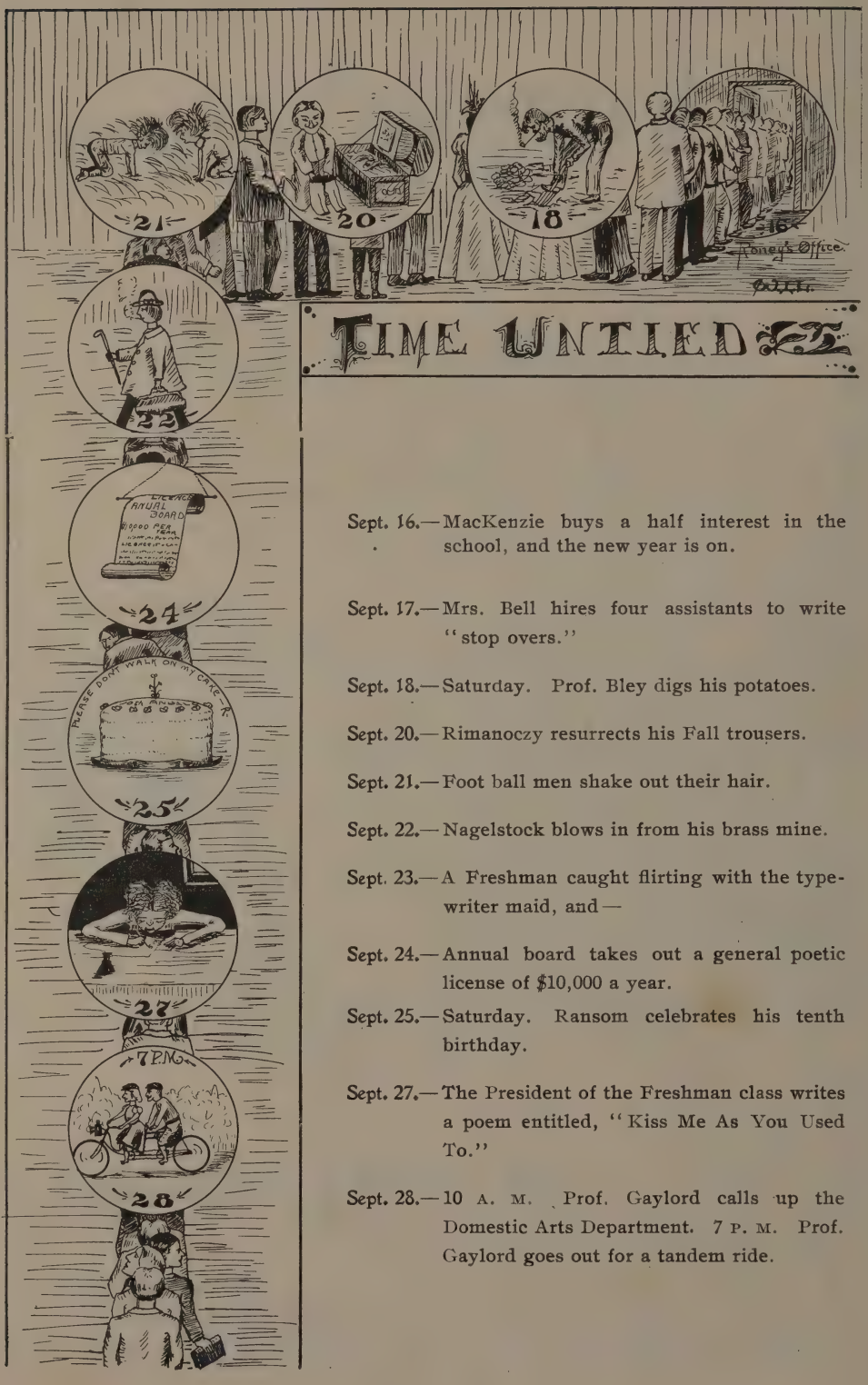
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Sept. 16.—MacKenzie buys a half interest in the school, and the new year is on.

Sept. 17.—Mrs. Bell hires four assistants to write "stop overs."

Sept. 18.—Saturday. Prof. Bley digs his potatoes.

Sept. 20.—Rimanoczy resurrects his Fall trousers.

Sept. 21.—Foot ball men shake out their hair.

Sept. 22.—Nagelstock blows in from his brass mine.

Sept. 23.—A Freshman caught flirting with the type-writer maid, and—

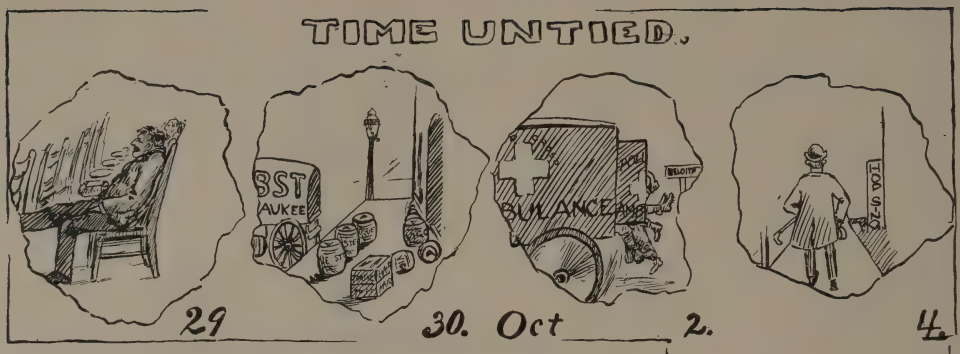
Sept. 24.—Annual board takes out a general poetic license of $10,000 a year.

Sept. 25.—Saturday. Ransom celebrates his tenth birthday.

Sept. 27.—The President of the Freshman class writes a poem entitled, "Kiss Me As You Used To."

Sept. 28.—10 A. M. Prof. Gaylord calls up the Domestic Arts Department. 7 P. M. Prof. Gaylord goes out for a tandem ride.


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Sept. 29.—Hindert falls asleep in class and thereby avoids a flunk.

Sept. 30.—The manager of the foot ball men contracts for forty casks of Vigorol; three dozen hair tonic and nine kegs nerve steadier.

Oct. 1.—McClintock smiles; cause unknown.

Oct. 2.—Saturday. The foot ball team goes to Beloit. Grief.

Oct. 4.—Bacon is seen taking his last week's collar to the laundry.

Oct. 5.—Warren has a severe attack of hysteresis of the brain.

Oct. 6.—Foot ball game with P. & S. Despair.

Oct. 7.—Burr taken before the faculty for flirting.

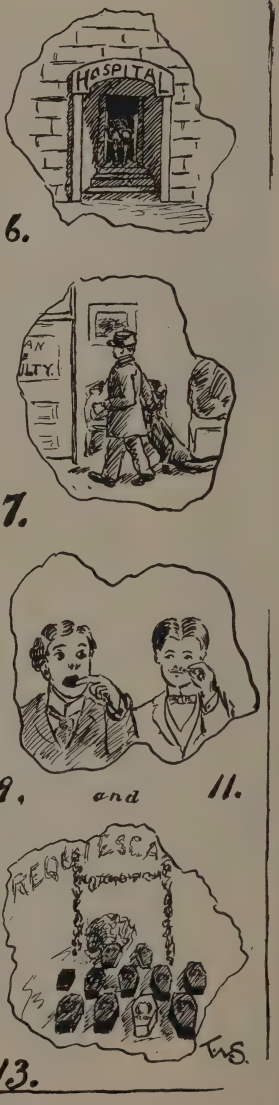
Oct. 8.—Faculty reception to the students postponed.

Oct. 9.—Saturday. Martin reports a wisdom tooth.

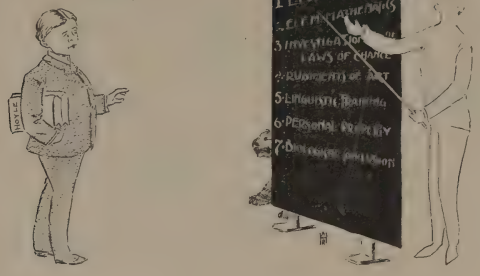
Oct. 11.—Blodgett exhibits his microscopic mustache.

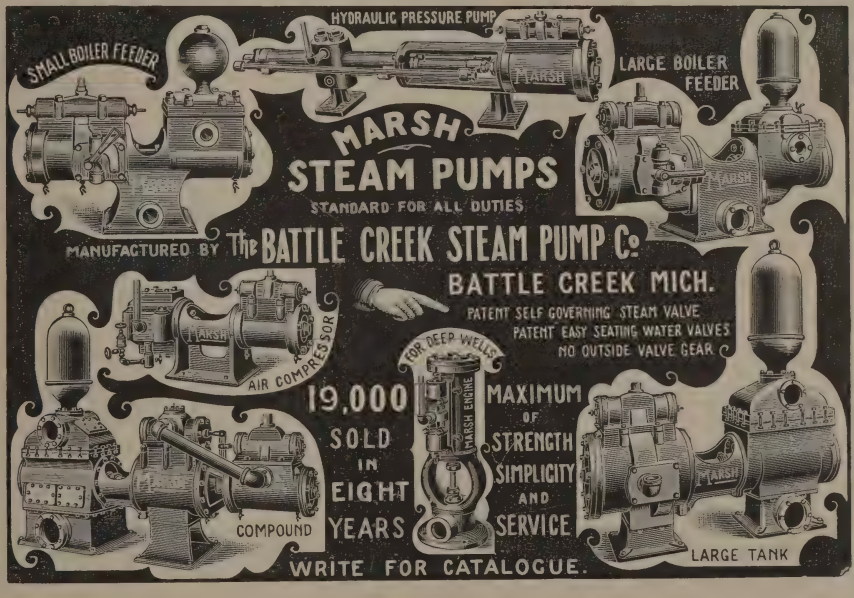
Oct. 12.—Christopher Columbus discovers America.

Oct. 13.—Foot ball team at U. of C. Anguish.



What a Freshman Learned by Bucking the Tiger



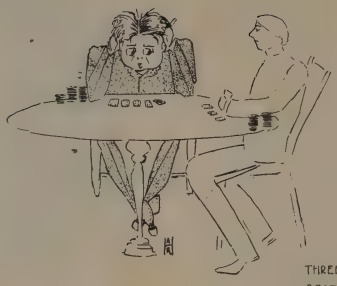


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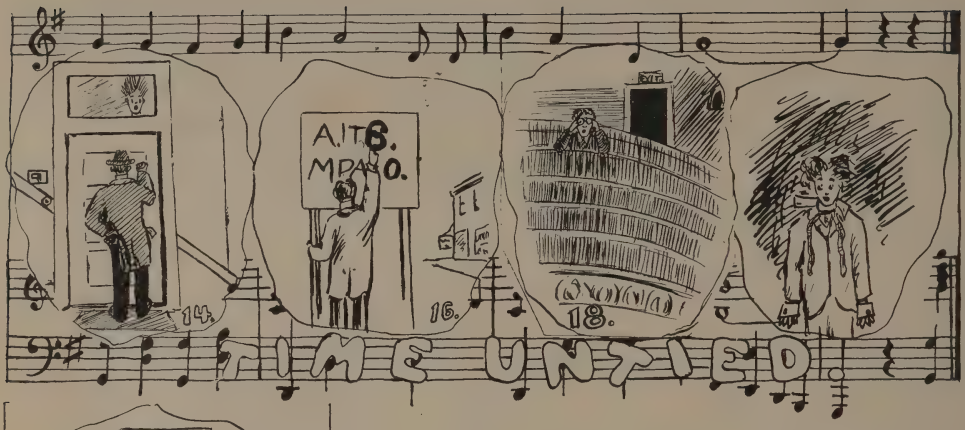
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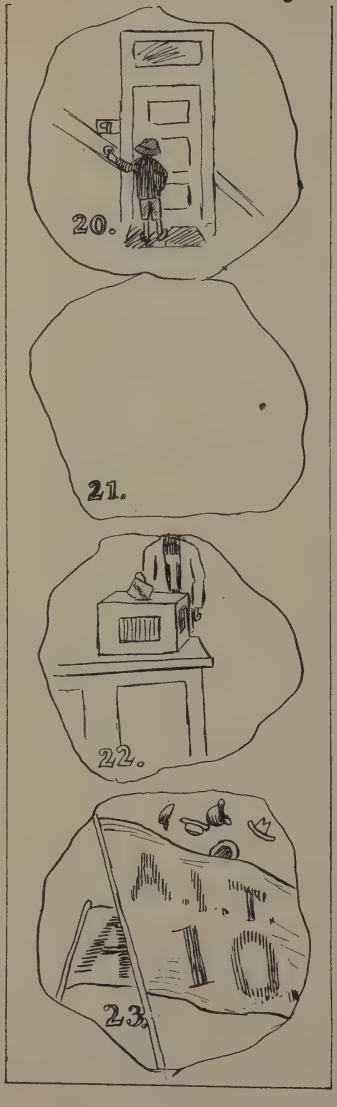
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Oct. 14.—Mr. Twichell puts on a brace of pistols and calls on the editor. The editor quickly agrees with Mr. Twichell.

Oct. 15.—Forty-'leven people ask the INTEGRAL board how the Annual is coming.

Oct. 16.—Saturday. The coroner appoints more assistants. Two more undertakers open up for business near 33d. Foot ball game at Morgan Park. Fair.

Oct. 18.—Hindert gets his hair cut and spends a quarter at Hooley's.

Oct. 19.—Garcelon struck by an idea; hair badly mussed and cuffs ruffled.

Oct. 20.—The INTEGRAL Board enters the "Record Home School" to keep in touch with the educators of the day.

Oct. 21.—Nothing happens; dull.

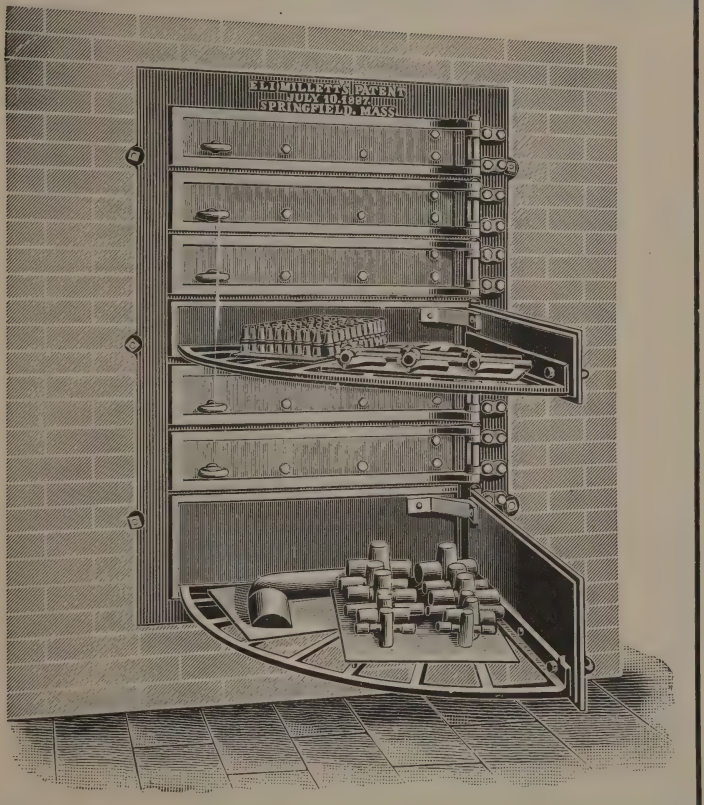
Oct. 22.—Athletic Board elects a chaplain.

Oct. 23.—Saturday. Foot ball team at Elgin. Glorious.

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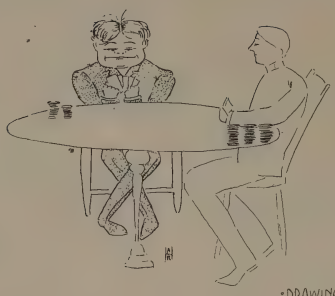
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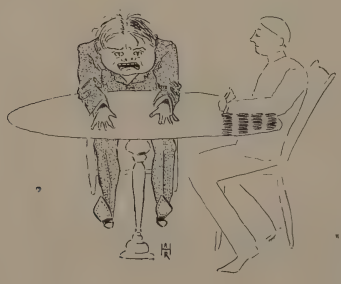
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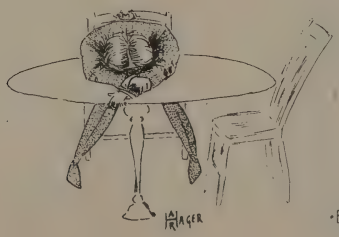
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Etc. Etc. Etc.

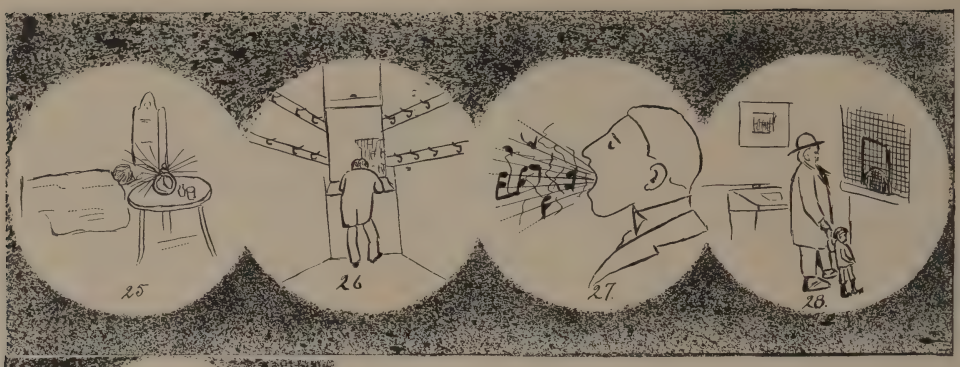


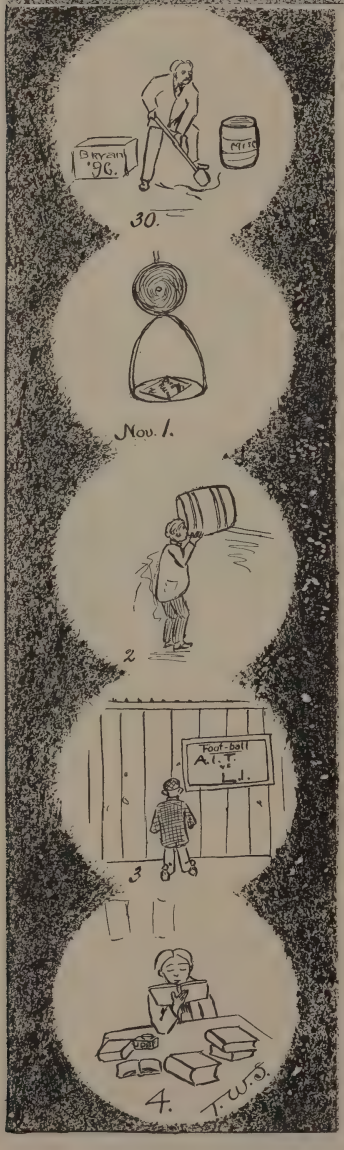
Perfect in Design
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·BIOLOGICAL CONCLUSION·



·BEWARE OF SHARKS·





Oct. 25.—Seniors get ready for a test on the Storage Battery Plant. Hindert sleeps with slide rule in hand.

Oct. 26.—Blodgett loses his overcoat.

Oct. 27.—Prof. Gaylord learns to swear. But then those who are forced to associate with the Seniors are not to blame for results.

Oct. 28.—Mrs. Beveridge satisfies an applicant that neither wagon making nor astronomy are taught within our walls.

Oct. 29.—The senate debates the living question, "Resolved, that Tarbell ought to be pensioned." Affirmative won. Sixty-nine people and four professors go to Lake Forest to see Armour get whipped.

Oct. 30.—Saturday. Shubart buries four gross 1896 campaign buttons in his cellar. Feindt carries in wood for his mamma.

Nov. 1.—Fulcrum born; weight unknown. Arnold wishes it might be named "The Radiator or Something Warm."

Nov. 2.—Faculty draws its salary. Porter makes his great record in handling water.

Nov. 3.—Lewis—Armour clash. Joy. Thirteen Fulcrum reporters on the grounds.

Nov. 4.—Brooke studies English. Another successful rotary engine announced and Prof. Kerr refuses food for thirty-six hours. Hess' mamma takes him to the horse show.

Nov. 5.—Seniors work all night on their test.

HARTFORD STEAM BOILER INSPECTION AND INSURANCE CO.
HARTFORD, CONN.

THOROUGH INSPECTIONS.....

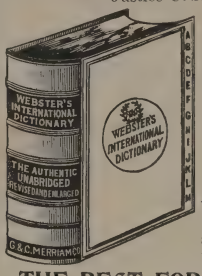
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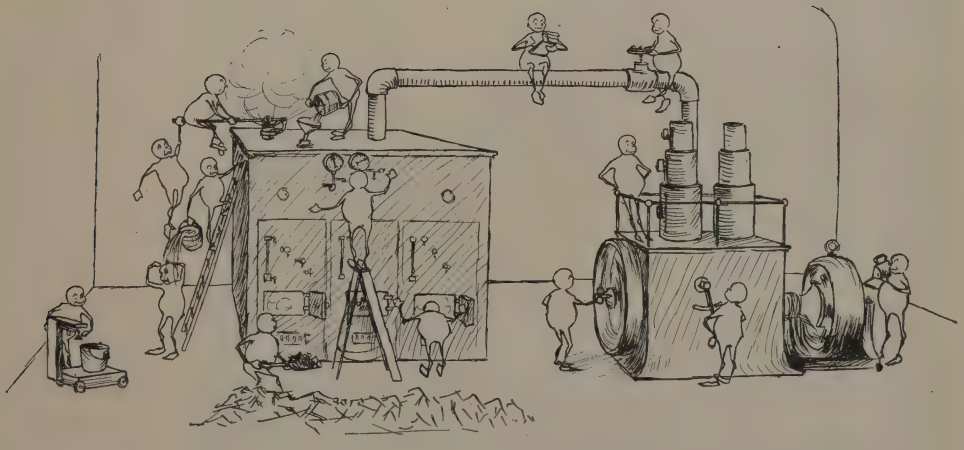
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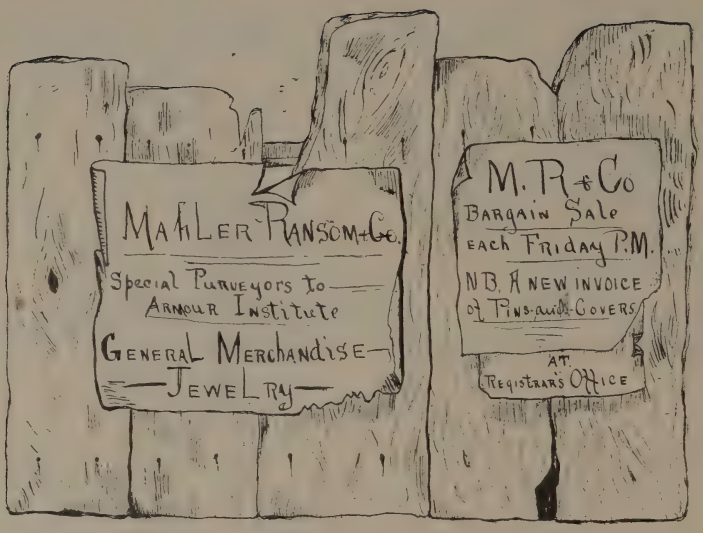
It is easy to find the word wanted.
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It is easy to trace the growth of a word.
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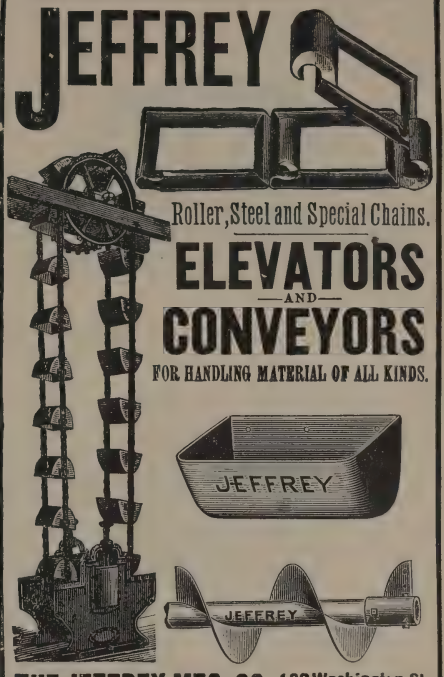
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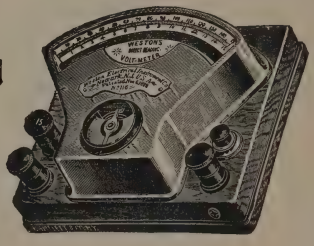
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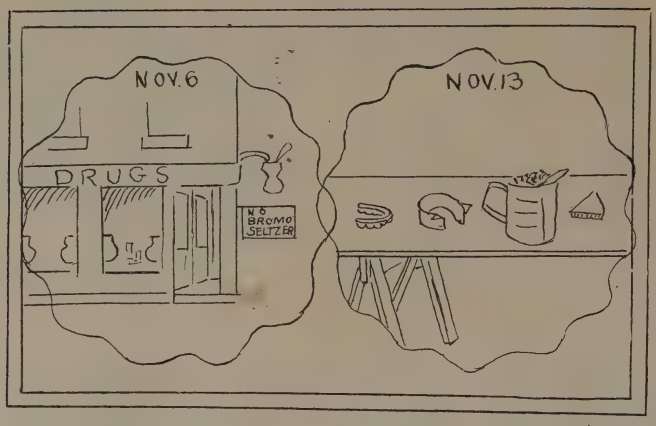
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'COS MY DADDY
SAYS SO."
"ALL ABOARD."
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MILWAUKEE
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RAILWAY





Nov. 6.—Sudden scarcity of Bromo Seltzer in town.

Nov. 8.—Harlan writes a poem: "One o'clock and all is hushed, And o'er the lea the jocund can is rushed."

Nov. 9.—Porter begins training for the Glee Club concert.

Nov. 12.—Seniors leave the Storage Battery road test and the company fumigates with H_2 S.

Nov. 13.—Alex sweeps the basement and finds one set false teeth, collar marked "H – – y," one quart buttons and piece of petrified pie.

Nov. 15.—Hanai makes out a list of average hours study per week on each branch carried and finds the total to be 176.89, or a little over 35.37 hours per day, five days a week.

Nov. 16.—Patten receives his weekly allowance of gum.

Nov. 17.—We wallop Hahnemann for the steenth time.

Nov. 18.—8 A. M., the Fulcrum will be out on time to-day; 8:15 A. M., owing to a delay in telegraph news we may be delayed—say 15 minutes; 8:23 A. M., we have gone to press, line up for your copies; 8:27 A. M., the last bulletin was a mistake, this is our busy day; 8:45 A. M., anybody wishing personal notice may yet be accommodated at 5c per word; 9:15 A. M., will be out—sometime; 4 P. M., forty Freshmen wanted to handle No. I, Vol. I, Tuesday next at 6 A. M.

Nov. 19.—Seniors elect officers and Boss Leeper is inducted into power, with Ward Chairman MacKenzie.

Nov. 19-20—Paragraph Club men have a party.

Nov. 22.—Twichell discovers his name in the Fulcrum and weeps for joy.

Nov. 23.—Roesch and Slaker find the seal cage on the fourth floor. The recognition is mutual.

Nov. 25 to 28.—Vacation. Graff goes on a tear and blows in 25c. We don't beat Racine.

Nov. 29.—A Prep. contributes the following: "An Irishman went up in a balloon and came down a Russ—ian."

Nov. 30.—7:00 A. M. The '99 flag floats from the staff; 8:00 A. M., as good as down for two hungry Sophs. are seen to grin; 8:01½ A. M., the deed is done, and to this day we know not the last resting place of our pennant.



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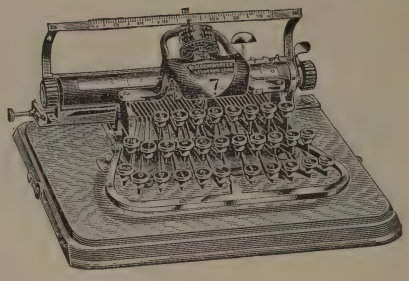
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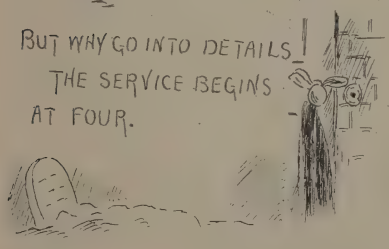
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WHO DEVOURED IT WITH VIM.



'TWAS ONLY THE DOCTOR'S CARRIAGE STANDING AT THE DOOR,

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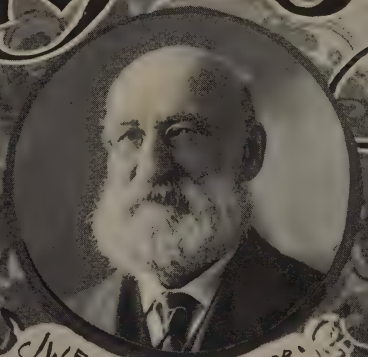
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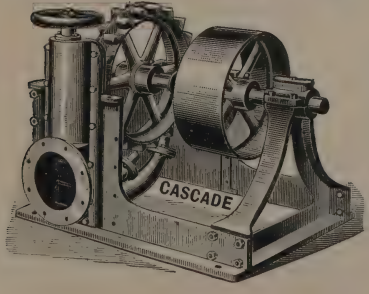


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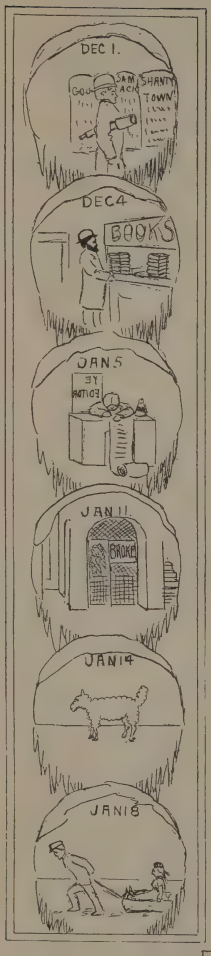
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Dec. 1.—Gay borrows a 2-inch telescope and attends the theatre.

Dec. 3.—Loeb chosen on the Luetgert jury—great head—escapes the term examinations.

Dec. 4.—Prof. Alderson buys picture books for his boys.

Dec. 6.—Terry changes his shirt; laundry rates advance.

Dec. 9.—The manager orders a mute for Millspaugh.

Dec. 10.—That classic event—the fifth Glee and Mandolin Club concert. The Juniors lead the cotillion as usual.

Dec. 13.—Examinations—Burr loses eight pounds.

Jan. 3.—Colby matriculates and the Doctor returns.

Jan. 4.—Four hundred and eighty-four people ask when the Annual is to be out.

Jan. 5.—The editor writes a fourteen-page editorial and the printers resign.

Jan. 7.—First week of study over—Patten emerges from the wilderness south of the Ohio—much to the joy of the little girls of the first floor.

Jan. 10.—Seniors and Juniors permitted to ride in the elevator.

Jan. 11.—Elevator out of order.

Jan. 12.—Arnold starts a "frat"—begins on the Freshmen.

Jan. 13.—Hanai moves—fifteenth time so far this year. Dr. Monin's lecture.

Jan. 14.—The Kindergarten obtains the loan of a sheep from the stock yards.

Jan. 18.—Snow ten feet deep—in Alaska. Fry takes his girl out sleigh riding.

Jan. 19.—The business manager of the Fulcrum trades an "ad" for a hair cut and one bath.

Jan. 20.—Prof. Pfefferkorn plays the piano.

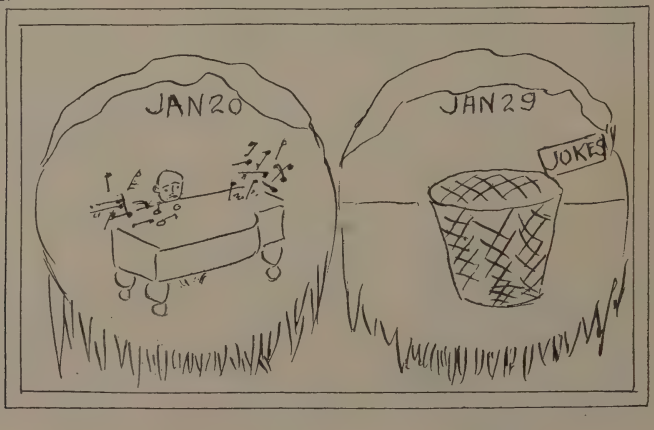
Jan. 24.—Mr. Manning requests that we do not mention him in any way. Fulcrum out on time. Editors positively promise not to let it occur again.

Jan. 25.—Rimanoczy sends for a Lewis catalogue.

Jan. 28.—'01 shows '00 some pointers in basket ball.

Jan. 29.—The joke market gets low.

Jan. 30.—Sunday. A good day to stop.



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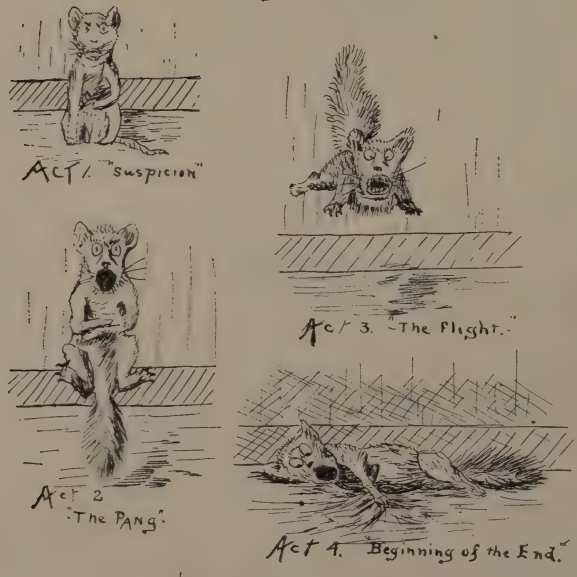
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(Curtain)

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B.H.C.

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Course Ph.D. Year A.D. 1897

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